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Alison Maddock
PRIDE OF THE THAMES.
LIFE
ON THE
Upper Thames
by
H. R. Robertson

"It chanced me one day beside the shore
Of silver-streaming Thames to be."

LONDON
VIRTUE, SPALDING, AND CO., 26, IVY LANE
PATERNOSTER ROW
1875
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ENGRAVED BY W. J. PALMER,
FROM DRAWINGS ON WOOD BY H. R. ROBERTSON.

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We rarely read a Preface, so have written none,
feeling with Emerson that everywhere "the sentence
must also contain its own apology for being spoken."
TO MY FRIEND

PHILIP SOUTHBY
LIFE ON THE UPPER THAMES
LIFE ON THE UPPER THAMES.

CHAPTER I.

THE BOAT-PEOPLE.

"And if, which God in Heaven forefend,
On us an alien foe descend,
The ancient stream has many a son
To fight and win as Alfred won;
High deeds shall illustrate the shore,
And freedom shall be saved once more
On 'Tamise ripe.'"

CHOLMELY A. LEIGH.

The name, Pride of the Thames, which may be spelt out on the barge we have sketched in our frontispiece, might not unreasonably have been read as referring to the fair steerer herself instead of her boat, though we fear that our pencil has done her but scant justice. Perhaps the word "fair" is hardly admissible when applied to a complexion of the dark but clear red and brown, that the open air and sun have had their own way with. It is colouring that defies description and simile, but which Mr. Hook has so well suggested in his pictures of our bonny fisher-maidens and their young brothers. We have used the word "barge" as being the most familiar term; "canal-boat," "monkey-boat," and "wusser" are other names for this description of craft; but the people actually concerned always speak of
it as a boat, and to what we ordinarily call a boat they apply the title of skiff, without any reference to its particular build.

That the boat-people live in their boats, as is commonly said, is true in one sense—that is, they are frequently for days, or a week or two, living entirely on board; but they resent the insinuation that they have no "come-from," to use their own expression. They have their cottage or their room, as it may be, and allude to that as "home." Their abode is most commonly in the parish in which their fathers and grandfathers lived before them, following the same calling. The fact that in most cases they own the horse that draws the barge, and that for the said horse they must take out a licence, would of itself oblige them to acknowledge a fixed residence. In truth, with a difference, they no more live in their boat than a gentleman does in his yacht. The spotless neatness of the little cabin, and the last polish bestowed on the brass fittings, are characteristics they frequently have in common with the pleasure-yachts of our upper circles. It seems that only on the water can one learn how brilliant a polish brass will take. In Holland certainly the same miracle of polish is attained; but then the whole country is but one degree removed from a vast dredging-barge—a barge that needs a good deal of baling out, too. The exterior decoration of these boats is noticeable, and evinces the pride taken in their appearance by the owners, who repaint them with the gayest colours as often as they can afford to do so. On the outside of the cabin are painted two or four landscapes (usually river-scenes), of which they are proud enough; and it is curious they invariably speak of them as "cuts." The one on the barge in our frontispiece is faithfully copied, and shows a river in which the water makes no attempt to find its own level, one side of the stream appearing many feet higher than the other. The tree might stagger a botanist, but the whole serves its first purpose as a cheerful decoration, which our more pretentious art so frequently misses. The smartness of the cabin part of the barge is often the more striking, from the fact that the load it bears is of a very opposite character, as coal, which is perhaps the most common freight. Thirty tons is about the average weight one boat is capable of carrying.

We have mentioned the fact that these boatmen pursue the same line of
life from generation to generation. From what cause we know not, but they are remarkably exclusive, in daily life mixing as little as possible with the villagers with whom they come in contact. They are a class apart, and have an undiscguised contempt for the ordinary rustic, chiefly, as far as we can gather, from the fact of his clumsiness. They say, with some truth, that unless a man is born and bred to boating, he is never lissom enough. It may be only the assumption of superiority usual with travelled men. In return, as is but natural, they are disliked by the villagers, who class them with gipsies, laying the blame on them for ducks' eggs missing, or damage done anywhere. Their spirit of independence, amounting to a general readiness to fight, is a marked contrast to the opposite manners of the peasantry, especially noticed by Oxford undergraduates, between whom and the "bargees" there is an old-standing hostility. A few families marry and intermarry, much in the manner of an old Scotch clan. They have preserved by tradition the old-fashioned belief in the medicinal value of many herbs that are now discarded from the pharmacopoeia. By their travels they become acquainted with the spots where the herbs are to be found, and occasionally collect them for sale in the towns through which they pass. Agrimony, and what they call thousand-leaved grass (probably yarrow), are the most in request. In reply to our question as to what they were used for, we were always told, "to make tea of to take when you're ill;" we never heard anything more specific as regards their application. When these remarks originally appeared in the Art-Journal, we had stated tansy, and not yarrow, to be what was probably meant by thousand-leaved grass. However, the Lancet honoured our statement with some interesting annotations, from which we extract the following: "The herb known as the 'thousand-leaved grass,' so much valued by the bargemen of the Thames, is the well-known Achillea millefolium, common yarrow or milfoil. It was highly valued by the ancients as a styptic vulnerary and astringent. John Gerard, known as 'Old Gerarde,' in his 'Herball' of 1597, says: 'The leaves of yarrow doth close up wounds, and keepeth them from inflammation or fiery swelling.' It is, in fact, one of the favourite remedies of the bargemen and common people throughout England, Scotland, and Wales, and is applied by them universally,
externally as well as internally, for almost every ailment to which they are liable. The first-mentioned plant, agrimony (*Agrimonia eupatoria*), has, like many others of the Rosaceae, long been known to the villager, who, on account of the tonic properties ascribed to it, sometimes makes it into an infusion or tea. A soporific, too, it seems to be, if there be any truth in the quaint old lines—

```
'Quo so may not slepe wel
Take egrimonye a fayre del
And lay it under his head on nyth,
And it schall hym do slepe alyth,
For of his slepe schall he not waken
'Tyll it be fio under his heed takyn.'
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As to whether ‘thousand-leaved grass’ is a popular synonym of the tansy (*Tanacetum vulgare*), no mention is made by a good authority, Dr. Prior, in his ‘Popular Names of British Plants;’ but it is well known that the plant in question, which, by the way, was once sold in the shops under the name of ‘Athanasia’—the Latin equivalent of the Greek ἀθανασία, ‘immortality’—has long been credited with peculiar medicinal (namely, anthelmintic) properties, forming the principal ingredient in those ‘hellish boluses,’ to use the language of Faust, ‘tansies,’ or tansy-puddings. Fearless of gout, and armed with such unpretending herbal, the lusty bargee, floating down the busy river, shows hardly to disadvantage in comparison with many a landed proprietor, past whose country-house he drifts—happy, shall we say, in the possession of a well-stocked medicine-chest, and in the consciousness that the family medical attendant is at his beck and call.”

The common charge brought against the barge-people, that their language is often unfit for ears polite, is, we must allow, too well grounded to be refuted. Their customary style of expression is decidedly more energetic than elegant. In palliation, we would ask our readers what would be thought of a country gentleman of the present day who should talk as Squire Western did? And bearing in mind how the class we are speaking of has kept to its own circle for generations, we can account for their retaining language which may be partly set down as the fault of a past age, with which they have so much in common.
That the boat-people are decreasing—in other words, that the barge traffic is declining—is discussed at some length in our remarks concerning the inland navigation. It is in the chapters devoted to the consideration of the locks and weirs that the boat traffic is thus incidentally referred to.

In this place, it may be as well to explain that the district known as the "Upper Thames" extends from the London stone near Staines upwards as far towards its source as the river is navigable. This stone, till lately, marked the distance at which the jurisdiction of the metropolis ended; at the present time the Thames Conservancy has the management throughout. The views selected for our landscape backgrounds have been chosen as accessory to the figures, and without any intention of topographical illustration. It is hoped, however, that they may be recognised as careful studies of characteristic Thames scenery.
CHAPTER II.

POLLING THE WILLOWS.

"... Water-wooing willows."—DENIS MACARTHY.

FROM the fact of the willow being found over a larger range of the earth's surface than any other woody plant, it has resulted that this tree has perhaps an interest to man beyond all trees of the forest. It flourishes amongst the luxuriant vegetation of the tropics, and in the desolate regions of the frigid zone is the very last to succumb to "the killing frost." Its frequent association with the water-side has doubtless had much to do with its obtaining favour from all—especially the poets, who have always held it in tender regard. In that grand poem, the 'book' of Job, these trees are alluded to as "willows of the brook," and by Isaiah as "willows by the water-courses." The beautiful passage in the Psalms referring to the Babylonish captivity, in which the willow occurs, has linked this tree to human sentiment for ever.

The suggestion of melancholy attaching to the willow has been further increased by two or three passages in Shakspere's plays. Desdemona, when she has some forebodings of her own fate, says, recalling that of her mother's maid, Barbara,—

"She had a song of 'willow,'
An old thing 'twas, but it express'd her fortune,
And she died singing it: that song to-night
Will not go from my mind."
POLLING THE WILLOWS.
She then sings snatches of it, with the refrain—

"Sing all a green willow must be my garland."

The spot at which Ophelia meets her death is thus described—

"There is a willow grows asaunt the brook,
That shows his hoar leaves on the glassy stream.
* * * * *
There on the pendent boughs her coronet weeds
Clambering to hang, an envious sliver broke;
When down her weedy trophies, and herself,
Fell in the weeping brook."

The epithet "hoar" applied to the leaves is particularly just in the position referred to in this passage: the under side of the leaf, which would be the part reflected, being in most species very white compared with the upper.

There has always been much confusion with reference to the different species and varieties of this widely-spread plant: a fact which comes prominently into notice in the matter of the cultivation of the osier, and is referred to by us at some length in our next chapter.

All the willows may be easily propagated by cuttings or sets either in the spring or autumn, but the spring should be preferred. They are of quick growth: * those which grow to be large trees, and are cultivated for their timber, are generally planted from sets, which are from seven to nine feet long; these are sharpened at their larger end, and thrust into the ground two feet and a half deep by the sides of ditches and banks, where the ground is suitable. This is the usual method now practised in most parts of England where the trees are cultivated, as they are generally intended for present profit; but if they are designed for large trees, or are cultivated for their wood, they should be planted in a different manner; for those which are planted from sets of seven or eight feet long, always send out a number of branches towards the top, which spread and form large heads fit for lopping. In this case their principal stem never advances in height: therefore, where fine tall trees are desired, they should be propagated by short young branches, which should be

* Their Latin name, Salix, is an allusion to their springing up quickly.
put almost their whole length in the ground, leaving but two, or at most three, buds uncovered. When they have made one year's growth, all shoots except the strongest and best situated should be cut off: this shoot must be trained up to a stem, and treated in the same way as timber-trees. Willows grow freely on the slopes or tops of exposed hills; indeed there are few situations in which they will not grow, but in no place so badly as in water-logged land. They thrive best in well-drained rich loam, but they will grow in any soil except pure peat. We learn from Mr. Scaling that the dense smoke of a town does not materially interfere with the healthy growth of these trees, and he adduces the public park of Glasgow as an instance. All the varieties of tree willows grow better and more vigorously from cuttings than from rooted plants.

As a screen or nurse to young plantations in bleak or exposed situations, the willow is perhaps the most useful plant we possess. One of the essentials in a nurse-tree for young plantations is quickness of growth, and, with the exception of the poplar, no tree can compare with the willow in this respect. For the game covert it has no rival so easily reared, and at the same time so effective and profitable. In some parts of the country the bitter willow has been adopted in preference to thorn for hedges, not only on account of its more rapid growth, but also because it produces a crop of twigs that is of considerable value. This variety is also frequently planted for plaiting into close low fences for the exclusion of hares and rabbits, the bark and leaves being so extremely bitter that these animals will scarcely ever touch them. Occasionally, when hard pressed for food, they may do so, but never to such an extent as to cause material injury to the plant. As the shoots are long, tough, and pliable, they may be formed into any shape; and a fence of this kind is reckoned little inferior to that of wire. This species is well adapted for planting in ornamental shrubberies, from the elegant slenderness of its twigs during winter, the redness of its catkins (the anthers being of that colour before they burst), and the fine purplish hue of its young shoots and leaves.

There are great tracts of land in England fit for willow cultivation, which at present produce little to the owners, and which might, by being planted with these trees, be turned to as good an account as the best corn-land.
POLLING THE WILLOWS.

From one of the Roxburghe ballads* we learn that the willow had a symbolic use, by which one ship made known its quality to another—

"Set up withal a willow wand,
That merchant-like I may pass by."

The industrial uses of the willow,† including the sallow and osier, are thus minutely described by the venerable Evelyn: "All kinds of basket-work, for which even our rude forefathers were held in estimation at Rome.‡ The wood is used for pill-boxes, cart saddle-trees, gun-stocks, and half-pikes; harrows, shoemakers' lasts, heels, clogs for pattens, forks, haymakers' rakes (especially the teeth), perches, rafters for hovels, ladders, poles for hop-vines and kidney-beans; to make hurdles, sieves, lattices; for the turners in making great platters, small casks and vessels to hold verjuice; for pales, fruit-baskets, cans, hives, trenchers, trays, boards for whetting table-knives, particularly for painters' scriblets, bavin, and excellent sweet firing without smoke." We are not acquainted with the term "painters' scriblet," but fancy it may mean charcoal for rough sketching, the best of which is now made from this wood.

Whenever it can be obtained, this wood is used for the floats of paddle-steamers and the strouds of water-wheels. It was always used by the powder manufacturers for charcoal in preference to other woods, and was only discontinued from the insufficiency of the supply. Willows support the banks of rivers, feed the bees, yield abundance of firewood, drain marshy soils, feed cattle with their leaves, and in their bark furnish man with a medicine for the ague—a disease particularly prevalent in the marshy localities where these trees abound.

The bark and leaves of the willow are astringent, and the bark of most sorts may be used for tanning; it is a fact worth noticing that the tanners of Norway and Russia use willow in preference to oak bark, and to this is attributed much of the excellence of Russian leather.

* Lord Howard and the Scotch pirate Barton. † See "Green's Universal Herbal," 1820. ‡ "Barbara depictis veni bascauda Britannis;
"Adda et bascaudas, et mille escaria."—JUVENAL, Sat. xii. v. 46.
A complete list of the uses of this plant—from coracles to cricket-bats—would be interesting, but space will not permit us to pursue this branch of our subject further.

The polling, which we have portrayed in our illustration, takes place about every seventh year, the middle of the winter being the time of the year most proper for this operation. The trees, when they have thus had their branches lopped off, are termed pollards. By many people they are considered at all times unpicturesque—a view we personally do not share. On the contrary, they seem to us to harmonise perfectly with the gentle current of the Thames, its lazy barges, and smooth, low-lying meadows.
CHAPTER III.

OSIER-CUTTING.

"By the rushy fringed bank,
Where grows the willow and the osier dank."

Milton’s *Comus.*

OSIER-CUTTING, which on the Thames usually takes place in March, is not unfrequently alluded to as the first harvest of the year. The expression seems hardly a correct one, as it is the growth of the preceding year that is not harvested, like other crops, in the autumn, but is left till the following spring; it might rather be regarded as the latest harvest of the year; at all events, it is a case that illustrates the proverb, “Extremes meet.”

The designation “osier” is applied to various species and varieties of willow used for basket-making, but more especially to the *Salix viminalis,* or common osier, and its varieties. By those concerned in the cultivation of the osiers, or in their subsequent application to industrial purposes, they are invariably spoken of as “rods.” The beds of osiers are called holts or hams, the small islands and irregular plots of ground by the water being chiefly set apart for their growth. An island on the Thames is commonly termed an *eyot.*

* The name *Salix viminalis* has been frequently objected to on the ground that the plant, instead of being what its name implies, is really one of the least *twiggy* of willows. We think, however, it more probably owes its name to the fact that it is only cultivated for the sake of the rods, or *twigs,* of one year’s growth.
(variously spelt ait and aight), a word we imagine to be derived from "islet."

The simplest way by which the whole of the osier class may be distinguished from any other willow is by noting the fact that, in certain stages of their growth, they have their leaves nearly opposite, this being the case with no other class of willows. The leaves of all osiers are very long and narrow, widest at the base, slightly toothed at the edges, smooth above and hairy below.

It is curious to observe the action of light upon the shoots at different times. The proper color of the common osier is said to be a yellowish brown, instead of which it is often a dull green. Certain varieties will in clear seasons be of a bright cherry colour, which in cloudy seasons deepen to a dark mahogany red.

The whole area under this particular cultivation in Great Britain and Ireland is estimated at little more than seven thousand acres, and the quantity grown is by no means adequate to the demand. Consequently, for much of our supply we are indebted to France, Belgium, and Holland. The last-named country supplies the inferior and cheaper sorts, mostly used by coopers for their hoops.

Much confusion exists with regard to the names of the species and varieties of the Salix, and a long list is given in Morton's "Encyclopaedia of Agriculture"* under this head. The subject of the classification of this plant is now receiving much attention, and an endeavour to rescue it from its all but hopeless condition is being made by Mr. Scaling, of Basford, one of the greatest willow-growers in the country. He has issued two of a series of papers on the subject, and gives some interesting particulars as to the difficulties of the task. For instance, he mentions two species that are identical, both as to flower and leaf, in the spring, but which differ widely at the end of the season. He tells us that "willows taken from the Alps and planted into gardens, so completely change their character and aspect, as not to be recognisable for the same species. Nor is the rule of naming them from colour

* Much of our information on these subjects is from this source.
any more certain method. Those known as the red willow, the grey or ash-coloured, the golden, the black, and the purple, are so changed as to colour by varying soil and situation as frequently to be mistaken for other plants.” Reference to the Botanical Gardens at Kew, Regent's Park, Woburn, Edinburgh, and Brussels, shows the same species labelled with a different name at each place. We hope Mr. Scaling may be as successful in carrying out his proposed new classification as he has been in demonstrating the absolute necessity for a new basis of operations. On our asking one of the men we have sketched cutting the osiers, which sort or kind was the best, he replied in a somewhat mystifying manner, “You see, sir, some sorts is kind and some isn't.” We did not see, and with difficulty got him to explain that the term “kind” is used to characterise a rod that is both tough and pliant, and is consequently suitable for basket-making. Personally, he inclined to favour the variety he spoke of as “silver-eyed.” We may mention that at present there are more than three hundred named species or varieties.

One of the first things to be observed in forming an osier plantation is to drain it of all stagnant or surplus water, as, contrary to a widely-spread opinion, no basket willows will arrive at perfection in land saturated with moisture. It must also be well pulverised to a depth of twelve or thirteen inches, and thoroughly cleared of weeds; and, if poor, well manured before planting.

Willow crops, like corn or root crops, are subject to many diseases; and it will appear strange to those who have been accustomed to consider the willow as a thing requiring no attention, to be told that it is subject to as many diseases as a crop of turnips, and requires as much care, to be grown successfully. The *Aphis*, or smoother-fly, is a great pest to all the sweet-scented or soft-wooded willows, known to basket-makers under the term of soft sorts, or osiers. *S. holosericea* suffers more than any other variety, hence the great uncertainty of obtaining a good crop from this willow; for as a productive yield seldom occurs above once in three years, it renders it the least remunerative sort of basket willow grown, notwithstanding its good qualities and the great value of a good crop when obtained. Isolated cases of extraordinary crops of this variety have been made public, and the extreme risk being kept
out of sight, has caused a "nine days' wonder" at the great profits of willow-growing. With proper care, willow-growing will pay quite as well as any crop usually grown in this country, and land, of little value for ordinary culture, can be made remunerative by this means. The weeding of the osier-beds is a very necessary part of their cultivation, and is regularly performed three (in some places four) times a year. The most troublesome weeds to get rid of are the beth-wind, or withy-wind, and the clivers.* Should the beds be submerged any considerable time by floods, they require to be thoroughly "birched" afterwards. Water-rats are very destructive to this crop in some seasons. On one occasion, in rowing past a ham, we noticed all the twigs round a stump gnawed off so neatly by them that we informed the owner that thieves had been cutting his rods. He at once accompanied us to the spot, when he said directly, "Rats!" and a close inspection of the trunk discovered traces of their teeth, instead of the clean cut of the reaping-hook. From our own observation, we should be inclined to say that the number of the water-rats on the upper part of the Thames is increasing pretty steadily every year.

"The osier-cutters were up with the lark; and while the morning dew hung like pearls upon the graceful willows, did they march with hooks in their hands; and taking stock by stock, and row by row, level all their new-budding and leafy honours with the ground; and laying bare many a half-finished bird's-nest, which was before shrouded by its tall tuft of nodding osiers. What a gap have they already made, through ground so thickly planted, that, an hour before, the eye could not penetrate many feet from the foot-path! And those tall osiers, many of them from ten to twelve, and even fifteen feet high, are but the growth of a single year. Twelve months ago, and those stocks or stems, standing but a foot high, were as round and naked as those which were this morning cut; and yet many of them have borne scores of osiers, not a few of which measure the full length we have stated. Osier-cutting is the hardest work—stooping from morning until night, and bending down the tall-headed willows with one hand, whilst the other wields the ponderous and

* Convolvulus sepium and Galium aparine: the latter is used to feed young geese, and is hence known as goose-grass.
sharp-edged hook, a cut from which will never be forgotten, should it glance from the stock and alight upon either leg or arm."

The above animated description of this employment is quoted from Miller's "Pictures of Country Life," a pleasantly written book, "tasting of Flora and the country green," and worthy to be placed on the same shelf as "Our Village." It is from the Trent that he writes, where, it seems, cutting takes place later than on the Thames. There are some differences in the after-processes of the two localities, that we intend to allude to in the next chapter.

The manner in which the rods are held between the legs while others are being cut is curious, and the same method is in use in other parts of the country. The tightening of the bolts before tying them is called winching, and may be seen in our illustration: two stout pieces of wood are used which are called the levers, and are connected by a strong cord passed round the bolt.

After cutting, the osiers require to be separated into the various sorts and sizes for basket-making, the long and thick from the short and small, and the rough from the smooth. The names for the different sized rods when sorted are Luke, Threepenny, Middleborough, and Great. Those which are spoilt by lateral shoots are put aside by themselves under the title of Ragged or Rough. The same names obtain on the Trent as with us. The derivation of the word Luke has puzzled us; it is applied to the smallest size worth tying up. The persons concerned in the industry could offer no reasonable explanation of the term; however, we were referred by a friend to Cockerham's Dictionary, where the word occurs with the meaning, "little—as luke-warm, luke-hearted." We should much like to know whether it is ever used by itself with reference to anything other than the osier. A bolt of the size known as Threepenny is now worth about fifteen pence: its old name has been retained in spite of the change of the money value that has taken place by the lapse of time. The sorting done, those that are intended for brown baskets, or to be peeled buff, are to be laid up and carefully dried and stacked. If they are laid too closely together when green, they are liable to become heated, like hay, and then they are useless for basket-making, as the heated parts, when dried, decay.
and somewhat resemble touchwood; and the result is the same if, after they are dried, rain should penetrate the stack so as to wet them.

In the South and West of England these rods are sold by the girth (in bolts of forty inches round); throughout the whole of the North of England and Scotland, by weight. As all the finer and harder kinds of willows are much heavier for the same bulk, a fine crop of the best varieties of moderate size will often weigh as much as a crop apparently larger. There is a great difference in price between a really good sort and a common kind.
CHAPTER IV.

OSIER-PEELING.

"... twigg's sallow, red
And green eke, and some wer' white
Such as men to the cages twight."

Chaucer's House of Fame.

THOSE rods that are intended for making white baskets require to have the bark taken off in the following manner. After being sorted, they are placed upright in wide and shallow trenches, called pits, with their butt-ends in water, which should be at least six inches deep. In some parts of the country a rivulet with a gravelly bottom is frequently chosen for the purpose. In this position they are made secure by posts and rails, so as not to be disturbed by the wind. In the spring, when the sap rises, they begin to bud and blossom as if they had been planted in the ground. By the end of April or beginning of May they will be found throwing out leaves and starting fresh roots. The sap is then sufficiently raised to admit of the removal of the bark from the rod, by drawing it through an instrument called a break, which, by pressure, causes the bark to burst and to separate from the rod. On the banks of the Thames the break is now always made of wrought iron, and is used by the person standing in the manner shown in our drawing. In Mr. Miller's account of the process he describes the breaker as seated with a wooden break between his knees, a method still occasionally employed on the Trent and other rivers. Mr. Scaling has
informed me that he has his iron breaks faced with india-rubber, and that they are thus rendered much more effectual, the tenderest willows being secured from injury.

In cold, unseasonable weather there is some difficulty in performing this operation properly, for the cold checks the flow of sap, so that by no effort can the bark be separated entirely. A thin under-layer remains attached to the rod, and this causes a brown, discoloured appearance, which very much reduces it in value. In order to avoid this, the process of *couching* is sometimes resorted to: the rods are laid down in a sheltered spot, well watered, and a large quantity of straw or farmyard refuse is laid over them, so as to exclude the external air. In about a fortnight they will "spire" all over, somewhat like barley in malting, and then the bark will separate freely. They must, after this, be placed against rails erected for the purpose, and carefully dried, and then stacked away under cover of some building impervious to wet. If damp when stored, or if any water reach them afterwards, they will become damaged in the same way as those not barked.

The first thing that strikes a visitor, on approaching the scene of the rod-stripping, is a hum of merry voices mingled with the ever-recurring musical "ping" of the break: the shape of the instrument is not unlike that of a very narrow jews'-harp, and fully accounts for its resonance. The strong aromatic smell of the fresh peelings is probably what will be next noticed, as the air is quite laden with what is an agreeable, if slightly pungent, odour. The recently peeled rods, thousands of which stand everywhere about, look very attractive in their pure whiteness, fit, indeed, for a child's cradle—the actual destiny that awaits not a few of them.

The peelings from the rods make a valuable manure, especially for potato-grounds; they supply also an excellent thatch, used in constructing sheds for cows or horses, which being generally too bitter for their taste is seldom touched by them.

It may be as well to explain what is meant by the expression "peeling buff," that we used towards the end of the last chapter. It is a process of removing the bark by means of boiling water or steam, instead of peeling by
Osier-Peeling.

The ordinary method, and a stain of a buff colour is thus imparted to the rods. The colouring-matter producing this result is contained in the bark. It is said that baskets made of the boiled willow are firmer and wear longer than those of white rods, and that white baskets will be superseded when the superior merits of the others are understood. However, in a matter of this kind the goddess Fashion is arbitrary, and we think this change is no more likely to happen than that brown bread should take the place of white in the household because the former is proved to be the more nutritious.

The system by which an account is kept of the number of bolts peeled by each woman is the ancient one of the tally. The word has survived in several cases: as a milk tally or score, a tally-shop or unlicensed pawnbroker's. We have never heard of the thing itself being still employed in any other business than the rod-stripping. It consists of a stick split as shown in the diagram—

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\[\text{Diagram of a split stick.}\]
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the larger part being kept by the foreman, and the smaller by the person working. When a bolt (that is, a bundle measuring forty inches round) is finished, the two pieces are laid together in their original position and a notch cut by the foreman simultaneously in both. The name of the individual to whom the account refers is written on the opposite side of the tally to that which we have represented, a slice being taken off the stick, as boys mark the ownership of their lead pencils. It is obviously of no use for any one to add a notch to her part of the stick, as of course it would not afterwards "tally" with the foreman's.

We subjoin an extract from an article in Parker's "Chronicles of the Seasons" on this old-world mode of keeping accounts. The whole paper is well worth reading, and should be referred to by any one who may be interested in the subject, as it contains an engraving of an old tally. "As the most complete illustration of the use of tallies, we may describe the ancient manner
of keeping Exchequer accounts. When this system was in full operation, and money payments were made into the Exchequer, the teller, or tallyer, wrote out a bill, on which was entered the name of the payer, the date, and the amount of payment. This bill was immediately passed down through a pipe into the tally court, where it went into other hands. The cutter of the tallies was an officer whose duty was to provide well-seasoned pieces of hazel, and cut them into neat four-sided sticks of a convenient length. On receiving the bill from the tallyer, the tally-cutter selected a stick, and made an entry on it, corresponding with the terms of the bill. Certain conventional arrangements enabled him to effect this; such as cutting a broad notch to signify a thousand pounds, a narrow one for a hundred pounds, a mere scratch for shillings, and holes for pence; these were all cut so as to extend entirely across one side of the piece of wood. This being done, the tally-cutter wrapped the bill around the stick, and handed both to the "scripotor talliorum," or tally-writer, an officer afterwards designated the auditor of the receipt. The tally-writer wrote upon two opposite sides of the wood a duplicate copy of the bill, and then read this inscription whilst another functionary, the clerk of the pells, entered the same in a book. The stick was then passed to the chamberlain, who slit it into two, each of which contained entries and notches exactly similar to those on the other. One half, called the tally, was then given to the person who had paid the money; while the other, called the counter-tally, was placed upon a string and carefully preserved in a large chest in the tally-court. If the same person afterwards came to pay in more money, he produced his tally, and the counter-tally was taken from its string. The tally and the counter-tally were fitted accurately together, to see that they corresponded, and the requisite entries made in both. . . . . The old tallies, accumulated to a large number, were lying as lumber in one of the apartments of the Exchequer; and the burning of these, by order of the Board of Works, led accidentally to the destruction of the Houses of Parliament in the year 1834."

From another passage in the same article, published in the year 1844, we gather that the writer supposed this usage of our ancestors to be altogether a thing of the past. It is, we think, extremely interesting to know that at
the present time (thirty years later) the system is still in regular use on the river.

That the whole operation of osier-peeling, as we have described and illustrated it, may speedily be abolished, seems more than likely. A letter that we received from Mr. Scaling last year gives us news of an American invention which apparently will bring about the change we speak of. The machine is that of a Mr. Witte; it can be worked by horse or steam power, and is capable, at a very slight expense, of peeling a ton of rods per day. The cheapness of this method, and the ever-increasing difficulty of getting hands at any agricultural work, will, we fear, cause these anticipations to be realised.
CHAPTER V.

SPINNING FOR TROUT AT A WEIR.

"At last, while haply o'er the shaded sun
Passes a cloud, he desperate takes the death,
With sudden plunge. At once he darts along,
Deep-struck, and runs out all the lengthened line;
Then seeks the farthest ooze, the sheltering weed,
The cavern'd bank, his old secure abode;
And flies aloft, and flounces round the pool,
Indignant of the guile. With yielding hand,
That feels him still, yet to his furious course
Gives way, you, now retiring, following now
Across the stream, exhaust his idle rage:
Till floating broad upon his breathless side,
And to his fate abandon'd, to the shore
You gaily drag your unresisting prize."

THOMSON.

ALTHOUGH a hundred years ago not only was the common trout,* but also his noble cousin, the lordly salmon, to be found in fair quantities along the course of the Thames, this river, from the fact of its flowing through a comparatively flat country, has probably never abounded with these fish to the same extent as our more northerly streams. The salmon, from whatever cause it may have been, whether disgusted by the abominations of the London sewage or impeded by the weirs or other obstacles, have for many years abandoned this river. We do not know of any record fixing the precise date when the last salmon was captured in the

*Salmo fario.
SPIPPING FOR TROUT AT A WEIR.

Thames; but many persons whose childhood may have been passed on its banks will doubtless, as we do, call to mind some old fisherman who laid claim to having taken, when a young man, the very last one that ascended the river. There is no doubt that the erection of the locks and weirs has, by deepening the reaches, altered the character of the stream in a manner favourable to the well-being of the pike, but decidedly prejudicial to "the lusty trout." This fish naturally loves a sharp scour, and clean, gravelly bottom; and these of course were the conditions most interfered with when the lock and weir system was gradually introduced. But as the sharpest streams and most gravelly bottoms are consequently to be now sought for immediately below these great artificial dams, so well known to every one on the Thames, it is in these situations that the trout occur in the greatest numbers and attain to their largest size. Independently of the facilities afforded them of preying upon the countless shoals of coarser fry frequenting such places, the very structure of the weirs, with their overhanging boards and numerous hiding-places, affords these fish a more certain protection from their human enemies than any other places on the stream. Netting is often impossible in these spots, and successful angling is far from easy. Almost every weir on the Thames will afford shelter to a small colony of trout, varying in size from 10 or 12 pound fish, who delights to lie just below the very strongest rush of water, to the smaller one of as many ounces, who affects the shallower and more tranquil regions at the tail of the pool.

It is to some of these weirs, then, that the old Thames angler looks back with the vivid recollection of their having been the scene of his greatest triumphs, and here may he still be seen patiently passing a livelong summer's day waiting on the monster currently reported to frequent the particular rush he is stationed at. With a moderate-sized bleak or small dace on his well-appointed spinning-tackle bobbing about amidst the snowy foam, will he be content to wait hour after hour, until, on some auspicious occasion, ostensibly depending on neither wind nor weather, the rapid silvery glance of the game he has so ardently desired, as it turns downwards with the treacherous bait in its jaws, will be considered ample repayment for the days of patient watching. And now comes
the test of the accomplished angler. Aided by the strength of the current, the frightened fish, with all its vigour called into action by the maddening sting of the sharp triangles, tries to its utmost the strength of his tackle; at one time, in almost a single rush down to the tail of the pool, nearly emptying the reel; at another, exerting all its craft and cunning to fray the line against the boards under which it is so vainly trying to hide itself. Ultimately, should all go well, the silvery trophy is tenderly laid on some grass in the basket of the angler, who feels such intense satisfaction as must be simply unintelligible to those who have not experienced the absorbing fascination that this sport, of all others, seems powerful to exert over its devotees. The desire to have "one more throw" frequently keeps the angler hours after the time he had intended to return; and when at last he reluctantly gives up, it is with a sigh and the wish that he could but have had "one more throw."

The invariable fact that each of these weir-pools is always found to be inhabited by a large trout, who is the apparent king of the place, reminds one that in this case, as with other monarchies, "the king never dies." When one is taken, another large trout soon shows himself in the same spot; it seems, indeed, as if he were the successor who had been in readiness to take up the vacated position at once. "Le roi est mort—vive le roi!"

The comparative scarcity of Thames trout at the present day has been the occasion of some very interesting correspondence in the Field and other papers. One of these writers puts the existing state of the case thus—alas! too truly: "A score of expert anglers on the Thames try hard all day, and catch—nothing. Latterly considerable expense and pains have been incurred in artificially rearing a stock of young fry, to be turned in every year; and yet, I think all must admit that the trout-fishing of the Thames is a failure. There are indeed a few fine fish caught annually. A single trout is seen to rise; his haunt is carefully noted, and the best anglers persecute him with every kind of bait, till, weary of life, he at length gives himself up, and the capture of a Thames trout is recorded. Such fish can only be taken by the best anglers after great perseverance, and even then the takes are few. But of trout-fishing in its ordinary sense there is none. We hear nothing of bags being made, of the
shallows covered with small trout, or of the surface of the river alive with them.” This writer proceeds to suggest, that while the coarse fish probably destroy the spawn of the trout to an injurious extent, the pike, “that monster of voracity,” is the chief delinquent.

Another contributor says: “If we would have more trout, let us give them a greater chance of life, and let their death, at least, be not ignoble. Put aside the butchery of the live-bait, take more to the fly, and let spinning be but at most the occasional resource of variety. Then, and not till then, will trout culture have a fair chance in the Thames, as one most essential requisite for the well-being of this fish is quietness. I counted the other day twenty-four punts within less than a quarter of a mile, in which one or more occupants were spinning. Now, as each angler had on a flight of thirteen hooks, giving three hundred and twelve hooks in all, as an average of fifteen yards of line was cast at each throw, and each throw and return occupied say a minute, and every likely spot was spun over and over again, the enormous quantity of water which these three hundred and twelve hooks searched in one day alone may be readily conceived, although difficult to calculate without the machine of Babbage.”* In reply to the suggestion of getting rid of the pike as the best means of encouraging the trout, another correspondent writes as follows: “As for saying they are devoured by jack, perch, &c., many are, of course; but those who write and wish to exterminate the jack appear to forget that the trout are invariably in the sharp streams, where the jack are not. They also appear to forget that the trout itself is more voracious than either jack or perch; so that if you had a reach of the Thames with, say, forty, or four hundred, if you like, trout of a pound and upwards, they would consume more of their own species than would be consumed by the same number of jack and perch.”

The most conclusive argument against the proposed attempt to exterminate the pike by netting is, that the practical difficulty would be so great, that, in the opinion of those best qualified to judge, it could only end in “ridiculous failure. It would simply result in spoiling the sport of five thousand pike fishers, and would scarcely at all improve that of some two hundred trout fishers.”

* Greville F., the Field, April 19, 1873.
The gradual destruction of the spawning grounds, the absence of boulders, snags, and holes as harbours of refuge, the poisoning of the water by mill-refuse, and the fish being poached when running up brooks, are among the various reasons put forward severally by different persons who are most actively concerned in the matter. We leave it to the reader to attach what weight he thinks due to the different causes thus suggested to account for the undeniable fact of the decline of this highly prized fish.

For the benefit of those who may not be acquainted with the term "spinning," it may be as well to explain that it means causing the small fish which serves for the bait to revolve rapidly on being drawn through the water. This is effected by fixing its body in a somewhat bent position, so that the tail causes a slight opposition in the transit through the water. This adjustment requires great nicety to make the fish spin freely, and the tackle includes several swivels to prevent the twisting of the line, which, of necessity, would otherwise take place. The manner of fishing with this tackle is a sweeping throw with the rod, which casts the bait some distance; the line is then drawn into the left hand or allowed to coil loosely near the feet. When nearly all the line is thus drawn in, so that little is left beyond the rod, the throw is again repeated. The rings attached throughout to the rod are in this case made large, that the line may run out with as little resistance as possible.

The extreme wariness of this fish, whose sense of seeing and hearing must be very acute, has always rendered angling for it a favourite sport. A shadow moving over the stream, the footsteps of a passenger along the bank, and similar trifles, do not escape the notice of the trout. So well is this known, that when on a bridge over a weir, it is no uncommon thing for the fisherman to tie list round his shoes in order to deaden the sound of his footsteps.

The trout varies much in appearance, according to the locality in which it is found; being bright and silvery in clear, rapid waters, and nearly black when taken from confined and dark situations. Occasionally it has been caught of ten and twelve pounds weight, and sometimes more; but a four or five pounds trout is considered a very good sized fish. Its usual colour is yellowish grey, darker or browner on the back, and marked on the sides by
several rather distant, round, bright red spots, each surrounded by a tinge of pale grey. The female fish is of a brighter and more beautiful appearance than the male.

The spawning time of the trout is from the middle of November till the beginning of January. Towards the end of the autumn they quit the deep water to which they had retired during the latter part of summer, and make great efforts to gain the source of the currents. Like salmon, "they will get," as Walton says, "almost miraculously, through weirs and floodgates against the streams, even through such high and swift places as is almost incredible;" and having reached the gravelly shallows, they make beds, and deposit their ova therein. Trout-fishing does not commence till the first of April, by which time the fish have recovered their condition. The head is at this time small in proportion to the body, which is nearly oval in shape, and the spots are brilliant and distinct. "A hog-back and a little head, to either trout, salmon, or any other fish, is a sign that that fish is in season," is Walton's homely rule; and he adds, "he may justly contend with all fresh-water fish, as the mullet may with all sea-fish, for precedency and daintiness of taste." At the present time there are always many people willing to give half-a-crown a pound for a Thames trout. The flavour of the flesh resembles that of salmon, but is more delicate. They are in most request for the table from May till the summer has passed—an effect produced by the greater quantity of insect food obtained during that period. An experiment was made some years ago to ascertain the relative value of different kinds of food to this fish, which is thus related by Mr. Stoddart:—*

"Fish were placed in three separate tanks, one of which was supplied daily with worms, another with live minnows, and a third with those small dark-coloured water-flies which are found moving about on the surface, under banks and sheltered places. The trout fed on worms grew slowly, and had a lean appearance; those nourished on minnows, which it was observed they darted at with much voracity, became much larger; while such as were fattened upon

* See Parker's "Chronicles of the Seasons," which is our authority for several of our facts relating to the natural history of this fish.
flies only attained in a short time prodigious dimensions, weighing twice as much as both the others together, although the quantity of food swallowed by them was in nowise great.” It cannot be denied, however, that the largest trout are taken in those streams which are well stocked with minnows and other small fry.

One of our up-river friends, when enthusiastically describing the appearance of a magnificent Thames trout, used a quaint expression, which we think worth recording. He said it was in splendid condition, “with plumage beautiful.” We were pleasantly struck by the remark, and could not help fancying that it would have been “a feather to tickle the intellect” of the learned author of the “Origin of Species,” had he been present. With this we will bid farewell to—

"The crimson-spotted trout, the river's pride,
And beauty of the stream."
WEIR, WITH MOVABLE BRIDGE.
CHAPTER VI.

WEIR WITH MOVABLE BRIDGE.

"... Weary as water in a weir."

EARLY ENGLISH POET.

No invention, however great an improvement it may be, ever seems to bring about a state of things better in all points than that which it supersedes. Accordingly there are reasons why inland waters, as a medium of conveyance, are in many cases preferable to railways. They are especially adapted for those goods which are very heavy, very bulky, or which cannot well bear any rough carriage. For the reason last mentioned, bricks are, if possible, always transported by water; it being found, from the smooth and easy motion of a boat, that the load is seldom damaged, while by rail the percentage of bricks that get broken is very large. To those persons residing near a river the expense of sending goods by it is frequently less than by any other mode of conveyance.

Inland navigation by means of rivers and canals is obviously at a disadvantage when compared with the road or the rail as regards rapidity of transit. The decided preference that rivers seem always to manifest for a circuitous route often renders the distance between two towns on the banks half as much again as the direct road between them. Besides, the regularity of the water-traffíc is liable to be interfered with by drought in the summer, and floods or frost in the winter. It is no wonder, then, that the railway should have drawn away most of the traffic from the Thames. The towing-
path along the side of the river was formerly valuable property, certain farms having a prescriptive right to supply the use of horses to the barges while passing. In one instance, to our personal knowledge, a path of this description which twenty years ago realised £200 a year, now scarcely repays the expenses of keeping in repair.

The chief difficulties that exist in the navigation of rivers are owing to the irregularity in the depth of the stream at different places, and the varying velocity of the current. The great obstacle, therefore, to be surmounted may be described as a shallow extending the whole width of the stream with a considerable rush or fall of water over it. This state of things naturally occurs with greater frequency the farther one penetrates inland towards the source of a river.

The most primitive way of overcoming the difficulty has been to erect a movable dam all across the river, below the shallow; the boards of the dam being, of course, high enough to keep back sufficient water to enable a boat to float over the shallow. By this means a boat descending the stream meets with no impediment till it reaches the dam, or "weir" (pronounced "wire" by the riverside people), as it is technically called. The boards composing the dam are then removed, and the boat proceeds for some time with great rapidity, owing to the increased volume of water by which it is carried along. The temporary depth thus produced while the body of water descends enables the boat to pass over many shallows below the weir. This removal of the boards is called "flashing" a weir, and is "the tide in the affairs" of bargemen, the neglect of which lands them "in shallows and in miseries." Of course it is in the summer and autumn that these artificial aids to navigation are most employed, there being at other times enough and to spare of the then precious fluid. We first thought that the word "flashing" was a vulgar corruption from "flushing," but as it appears in the printed orders of the Thames Conservancy we suppose it is correct. The suddenness with which the pent-up water rushes away, and its glitter and white foam, may not improbably have suggested the word. When the water is low, the river is flashed twice a week by the regularly appointed keepers of the weirs, each
of them waiting till the water from the weir next up the stream has reached him. By this means a continually augmenting volume of water descends, on the flood of which the whole of the traffic is carried. Sometimes the bargemen are sorely tempted to draw a flash on their own account, when they may have been unusually delayed, or are from any reason particularly anxious to proceed. However, the Thames Conservators are severe, and have issued handbills stating that all persons offending in the above case render themselves liable to a penalty of £20, and the strict observance of the regulations is considered so essential that the prosecution of offenders is deemed by them an imperative duty.

The different parts of the most simple weir are first the sill or fixed beam, laid securely across the bottom of the stream; then, directly over this, but considerably above the surface of the water, is placed a second but movable beam. Against and in front of these parallel beams a set of loose boards is placed upright and close together like a door. These loose boards are called paddles, and the long handles with which they are furnished rest against the upper beam, the pressure of the stream serving to hold them in their places. Between the paddles are placed upright supports termed "rimers;" and when a second set of paddles is employed over the first to obtain a greater depth of water, this set is called the "overfall."

A weir, though constructed for the purpose of facilitating the navigation, is incidentally of considerable use in other ways. The damming up of the water renders any side stream that may happen to leave the main current above and rejoin it below a weir available for turning a water-wheel; consequently we find a mill of frequent occurrence in its neighbourhood. The picturesque appearance of the spot is thus often greatly enhanced, for if the miller's dwelling should chance to be an old building, it is sure to be pretty; if a new one, I am afraid we must say it is pretty sure not to be so.

As the largest barge is far from occupying the full width of the stream, it is practically found that only a portion of the bridge is required to be movable. In our illustration to this chapter the man who is putting down the paddles is standing on the movable part, called the "swing-bridge." It revolves
on a pivot close to the edge of the water, and the weight is balanced by the increased thickness of the beam at the landward end, on which is often placed a great stone or other heavy substance. The upper beam and hand-rail across that part are, of course, removed before the bridge is swung round, and it is for this purpose that the two handles which may be noticed are added.

We met with the expressive line which we have put at the commencement of this chapter in the following passage from Lowell's essay on Chaucer; he does not inform us from which old author he has culled it: "Even the stereotyped similes of these fortunate alliterates, like 'weary as water in a weir,' or 'glad as grass is of the rain,' are new, like nature, at the thousandth repetition. This popular literature is of value in helping us toward a juster estimate of Chaucer, by showing what the language was capable of, and that all it wanted was a poet to put it through its paces."
WEIR, WITH FIXED BRIDGE.
CHAPTER VII.

WEIR WITH FIXED BRIDGE.

"Shall Thames be barred its course with stops and locks,
With mills, and hills, and gravell beds and rocks,
With weares, and weeds, and forced hands made,
To spoil a publike for a private trade?"

JOHN TAYLOR (the Water Poet, 1640).

Our explanations of the preceding drawing apply in a great measure to this, modified, as the name implies, by the fact that in this case the whole structure is permanent. Thus, instead of paddles with long handles that are removed bodily, we have them here made to slide in grooves. They are raised by means of the chains which are coiled round axles placed just below the upper beam. The axles are caused to revolve by inserting into them a staff with a square end, for which purpose the square holes are made that may be observed near either extremity of the axles. A short chain, suspended from the upper beam and finishing with a hook, is used to retain the paddle at whatever height may be thought desirable, by attaching the hook to a link in the chain first alluded to. Some of the paddles are represented as left down, so that the mode of raising them may be the more readily understood by noticing the different positions of the chains in either case.

One of the incidental uses of these weirs is that the framework erected may be with very little trouble utilised as a bridge. In the thinly populated districts of the Upper Thames regular bridges are few and far between, so that
these slight foot-bridges save the poor people many a weary mile in their walk to the nearest market-town.

The noisy rush of water that continues for an hour or so after the flash is drawn is enough to terrify a child, for whom the railing is at too great a height to be much protection. There is a considerable trembling of the old timber, with a tumble-down air pervading the whole thing, that may well justify the timidity of the little girl we sketched while being carried over by her father, and looking the picture of alarm.

One of the effects of sending down the head of water is to cause the big trout to show himself at the surface, rising first at one part of the pool and then at another; but, as we believe, more in wantonness than for food. We fancy it is his way of testifying that the boiling and eddying state of the water is his idea of the correct thing in the way of a trout-stream, and a protest against man's endeavour to improve the river to a dead level. Visitors to the Crystal Palace or Brighton Aquarium will have noticed how fish of many kinds seem to revel in the bath of air-bubbles that enters with their fresh supply of water. Mention of the trout reminds us that one paddle is frequently left up when the rest are down, for the sake of putting a net in the passage thus made, in which any fish carried down by the stream or trying to descend may be entrapped. As this description of weir is a permanent structure, provision is made for the passage of boats by means of an ingenious arrangement called a "lock," which is described and explained in our next chapter.

The difficulty of making use of information from old authors who may have incidentally alluded to the navigation of the river is greatly increased by the curious change that has taken place in the meaning of the terms employed. For instance, Chaucer refers to the weirs of his day in the following passages:

"This stream leadeth you to the sorrowful weir
Where as the fish in prison is all dry."

*The Assembly of Fowls.*

"When they may not construe how it may go
She loveth him, or why he loveth her,
As why this fish, not that, comes to the weir."

*Troilus and Cressida.*
Now the sense of both these passages shows that the word "weir" then meant simply a trap for fish; no doubt this was placed where there was a dam of some sort, and so in time the word became gradually transferred to the obstruction itself.

Again, before even the invention of what we now call a "lock," the word was common enough, and is found in many old authors when speaking about the river. The context invariably shows that it was used for what, at the present day, is called a "weir;" so that where this has not been understood by the reader, the meaning must have been frequently obscured. The accompanying extract from an old tract will bear out our statement. The pamphlet is entitled "Sad and deplorable news from Oxfordsheir and Barksheir, being a true and lamentable relation of the drowning of about sixty persons, men, women, and children, in the lock near Goring in Oxfordsheir, as they were passing by water from Goring feast to Stately in Barksheir. Printed for R. Vaughan, in the Little Old Bailey, 1674." The accident arose from the imprudence of the waterman in taking his boat too near to the "lock," where, by the force of the water, the boat was drawn down the "lock," and presently overturned. Except some fourteen or fifteen, all were unfortunately drowned in the presence of hundreds of persons, then met at the feast. The pamphlet concludes by a solemn warning and prophecy, that this was one of the signs of the approach of the Day of Judgment!

Chamberlain's "Survey of London," published in the year 1770, mentions the existence of many "locks" on the Thames, which are thus defined: "Machines of wood placed across the river, and so contrived as to confine the current of water as long as is found convenient—that is, till the water rises to such a height as to allow depth enough for the barges to pass over the shallows; which, being effected, the water is set at liberty, and the loaded vessel proceeds on its voyage, till another shoal requires the same contrivance to carry it forward." This, it will be seen, answers precisely to what we have defined a "weir" to be. At that date the expense to a barge for passing through all these weirs amounted to nearly fourteen pounds. This was, however, only during the summer, when the water was low, these weirs at all other seasons being
removed; and the same authority adds that "from London Bridge to Bolter's Lock, which is a distance of fifty-one miles and a half, there is no lock on the river."

In the lines from the "Water Poet" that preface this chapter he has introduced "rocks;" this is, we suppose, a poetical licence, as, though rocks do not exist in any part of the Thames, at all events the word rhymes admirably with "locks." The "weares" had always been a grievance; the Magna Charta includes a clause for their suppression, and they are frequently mentioned in later Acts.
OPENING A LOCK.
CHAPTER VIII.

OPENING A LOCK.

"That, drawn off sideways, smooth and still,
The pent-up flood may go
To where the lock doth fall and fill,
With gate-checked ebb and flow.

"Like subtle counsel, that supplies
A safe and sidelong way
To round whatever barriers rise
Across the forthright way."

TOM TAYLOR.

A LOCK, or pound, as it is sometimes called, is an enclosure between two pairs of gates, and is usually large enough to admit several barges at the same time. It is the necessary accompaniment of the fixed weir, alongside of which it is sometimes placed, though more frequently on a side-stream, or "cut." The level of the water above and below the lock corresponds with that above and below the weir; but in the lock itself the water level can be varied at pleasure, between the two extremes, by means of valves in the gates. These permit the water to enter through the upper gates and to escape through the lower ones. When it is necessary to pass a boat upwards through the lock, she is first floated in at the lower gates, previously opened, and which are next to be shut. Water is then admitted through the valves of the upper gates till it has filled the lock-chamber to the level of the water above the weir, and has, of
course, raised the boat along with it. The reverse of this process will obviously conduct a boat down through the lock, which is said to be empty when water in it is at the lower level, although it has still the same depth of water as the lower river.

The tendency of the age to substitute the mechanical and the ugly for the simple and picturesque is noticeable on the Thames as well as everywhere else. Hideous turret-ships on the sea have their counterpart in the horrid little steamers that one now encounters high up the river. The number of these nuisances increases yearly at a greater rate than would be believed, and are fast robbing the river of its peaceful beauty. But have we not heard that even Venice, throned on her hundred isles, has had her hitherto silent thoroughfares invaded by one of these screeching little monsters? The reflection most often forced upon our mind while engaged on the present work has been that, in whatever direction our study may have lain, "the old order changeth," and that had we delayed our task much longer there would have been left comparatively little of interest that an artist would select for representation. So, in the case of the locks themselves, the quaint old constructions of irregular wood-work that were a pleasure to look upon are gradually making way for successors of "improved" modern style. With side-walls of square blocks of concrete, and smooth gates as black as pitch can make them, they lose all charm of appearance. The action, too, of opening the gates by leaning the back against the swing-beam, that we have depicted, is fast becoming obsolete, giving way to a mechanical apparatus with wheel and axle.

The locks also serve the purpose of toll-gates, the sum to be paid being regulated by the size or freight of the boat passing. The proceeds are devoted to the necessary expenses connected with the navigation. There used to be considerable difference in the charges at the different locks under the old régime, some few of them, however, being free. At the present time all are under the management of the Thames Conservators, who have issued by-laws with the following scale of tolls for pleasure-boats.

CLASS I.—For every pair-oared row-boat, skiff, outrigger, randan, dinghy, punt, canoe, or company-boat, 3d.
CLASS II.—For every four-oared row-boat (other than the boats enumerated in Class I.), 6d.

CLASS III.—For every row-boat, shallop, and company-boat, over four oars, 9d.

For every house-boat, 2s. 6d.

The above charges to be for passing once through the lock, and returning the same day.

In lieu of the above tolls, boats may be registered on the annual payment to the Conservators of the under-mentioned sums, and may, in consideration of such payment, pass the several locks free of any other charge:—Every row-boat in Classes I., II., and III. to pay respectively 20s., 30s., and 40s. per annum; and every house-boat, 100s. per annum.

Some account of the different descriptions of boats here mentioned will be found in a later chapter under the title "Boat-building."

The occupants of pleasure-boats frequently have a dread of passing through a lock, from an exaggerated idea of the danger of the proceeding; quite as often they are not aware of what danger there actually is; and hence many a day's pleasure has been marred. The safe position for a boat in a lock is to be parallel to and close by one of the side-walls or another boat. She should be held to the side with a boat-hook by the oarsman in the bow-seat when ascending the river, and by the steerer when descending. When this rule is attended to, the pressure of the current itself keeps the boat in its proper position alongside, and prevents it swinging across the lock. The only case in which, to our knowledge, the above rule admits of any modification is when so strong a wind is blowing up the river as to counteract the pressure of the stream. In ascending, it is necessary to look sharply that neither a row-lock, nor any other part of the boat, gets caught under any projection, such as a beam, at the side of the lock, as in this way a boat will be first held by the rising water, then soon filled and swamped. Should, through carelessness, a boat become fixed in the way we are speaking of, the lock-keeper should be instantly shouted to, that he may let down the valves or paddles, and so prevent any more water coming in. While descending the
river, the danger is so slight that we have never known any case of an accident happening in a lock. If there should happen to be any greatly projecting ledge—a very rare occurrence—care must be taken that the boat do not rest at all upon it while the water is subsiding.

It is supposed, and with considerable probability, that the casual position of two weirs near each other may have originally suggested the invention of the lock. A number of locks on a river changes the naturally inclined plane of the water into a series of comparatively level surfaces, separated by abrupt descents; a somewhat parallel case on land would be to alter an easy slope into large flat terraces with a single step down from each successive terrace.
CHAPTER IX.

NET-MENDING.

"Le pauvre carillon lui dit en sa manière,
Que ferez-vous de moi? je ne saurois fournir
Au plus qu'une demi-bouchée:
Laissez-moi carpe devenir!"

LA FONTAINE.

HOOP-NETS, which we have here depicted, resemble to some extent the grig-weels described in a later chapter; they are, however, much larger in the opening, and being constructed of string instead of osier-rods, they present a very different appearance. They are laid in the evening, with the larger or open end down the stream, so that fish "moving" during the night may work their way into the small chamber, as eels do in the grig-weels. They are not set for any particular species: perch, jack, chub, roach, dace, in fact "all is fish that comes to the net." We might add moor-hens and even otters; for the former the net is often purposely laid in a dry ditch that they have been observed to frequent; and with regard to the latter, we have heard of instances in which they have pursued their prey right into the net, and thus led to their own destruction.

It is a good thing that we have a Board of Thames Conservators, who can make by-laws in the interests of the professional fisherman; for, as a rule, he himself is sadly wanting in foresight. The size of the mesh in these nets is wisely put at two inches, the use of anything smaller being illegal; yet the fisherman, in most cases, grumbles at the escape of the undersized fish.
Before the present prudent regulations were enforced, the spawning season of the different kinds of fish was little, if at all, respected; and they were then most recklessly destroyed by the very persons who would afterwards be the chief losers in the case. "Stiving-time" is the country expression on the Upper Thames for the spawning season. We have known of the fish being taken, under these circumstances, in such quantities as would be generally considered incredible. They have been hawked round by the barrow-load, and sold for a mere trifle to any one who would buy. As nourishing food during that season they are nearly worthless, and not unfrequently are positively unwholesome.

The malpractices of taking small fry and spawning fish are of very old standing, if one may judge by the laws that have in past times been enacted against them. We find in the preamble of an act* passed in the reign of Queen Elizabeth, that—

"The spawn, fry, and young breed of eels, salmon, pikes, and all other fish heretofore, hath been much destroyed in rivers and streams within this realm, insomuch that they feed swine and dogs with the fry and spawn of fish, and otherwise, lamentable and horrible to be reported, destroy the same, to the great hindrance and decay of the Commonwealth."

It is then enacted—

"That no person or persons of what estate, degree, or condition soever he be, or they be, with any manner of net, weele, but, taining, kepper, line, crele, raw, faghet, trol-net, trimboat, stallboat, weblister, seur, lammet, or shall use any heling net, or by any other device, engine, cawtel, ways or means whatsoever heretofore made or devised . . . shall take and kill any young brood, spawn, or fry of eels, salmon, pike or pikerel, or of any other fish." Such a host of "machines and ways and means" is suggestive of a corresponding abundance of fish in those days. The act, which is a very long one, contains also the regulation that "every mesh or mash of the net shall be two inches and a half abroad."

There are several alterations which might be wisely made in the existing

* See "Records of Buckinghamshire," No. 8, p. 273.
fence months for the various fish. Our authority on these points is Mr. Francis Francis, the able editor of the *Field*, and probably the most competent person living to give an opinion in the matter. He says:

"These, then, are the changes which I advocate: Allow roach, bream, and chub to be taken through March; prohibit the taking of trout until April, and also the capture of pike, barbel, roach, bream, and chub in June. The dace and perch, which are earlier spawners, and are by that time in fair condition, may still be taken in June. As a rule, the other fish, except the jack, do not feed much in June, and are not fit to take; when they are, the deprivation would be small, while the advantage of the change would be great. Then, too, a word or two may be said of the carp and tench. These fish do not spawn till June, and in other waters often kill well and are in good condition in March and April, the weather being fitting. These, too, might be taken through March and April. They are not abundant in the Thames, but might easily be made so, if the Thames Angling Preservation Society would but give their attention to the increase of them. Where they are found they grow to a large size, and are excellent sporting and table fish. They could easily be largely increased, as there are very many localities specially adapted for them. We often have lovely weather in March, when one longs to be on the river. The puntsmen, I am sure, will advocate the change, as they will get a month's work where now they do not get a day.

"I wish all the London clubs would take this question under consideration, and send us, through their secretaries, their opinions as to the desirability of the change, with any remarks they may feel called on to make. I am not in the least bigoted about the matter, but am desirous of doing some good, especially to the poor puntsmen, to whom I owe many, very many, pleasant days on the bosom of dear old Father Thames."

Another point is, that the ditches, &c., adjoining the Thames should be protected: omission of a clause to this effect has resulted in the wholesale destruction of fish by means of the wire noose. "There is, however, some hope that in the absence of Conservators' law this decimating practice may be put a stop to; for it would be the first consideration of the workers of any com-
prehensive scheme for the protection of the whole of the Upper Thames to obtain the sanction of the landowners to prosecute for trespass—the only way which indeed presents itself as a check or suppression to so abominable and demoralising a pursuit.”

Though all know well enough what a net is, it is one of those things extremely difficult to define with accuracy, and has accordingly been a sad stumbling-block to lexicographers. The explanation of “net-work” as given in Dr. Johnson's Dictionary is very amusing, particularly if one imagines it consulted by a person imperfectly acquainted with our language; it is as follows: “Anything reticulated or decussated, at equal distances, with interstices between the intersections.”
CHAPTER X.

SHEEP-WASHING.

"On the bank
Of a clear river, gently drive the flock,
And plunge them one by one into the flood:
Plunged in the flood, not long the struggler sinks,
With his white flakes that glisten thro’ the tides;
The sturdy rustic, in the middle wave,
Awaits to seize him rising; one arm bears
His lifted head above the limpid stream,
While the full clammy fleece the other laves
Around, laborious, with repeated toil;
And then resigns him to the sunny bank,
Where, bleating loud, he shakes his dripping locks."

Dyer.

Small side-streams, or brooks, leading into the river are generally chosen for sheep-washing, being usually more convenient for the purpose than the main stream. The process, as we have ourselves witnessed it, differs from that which we have always seen in pictures or read about, in the point of the men not standing in the water at their work. It may be that the method varies somewhat in different parts of the country, or more probably that this, as well as many other things, is pushed forward earlier in the year than it used to be.

From Thomas Miller’s “Pictures of Country Life” we quote the following spirited description of an old-fashioned sheep-washing:—

“All who have wandered into the country about the beginning of summer
must have heard the unusual bleating amongst sheep in the neighbourhood of rivers, or beside watercourses; and if they have never beheld such a scene before, must, when they have reached the spot, have looked both with interest and pleasure at a sheep-washing. There stand three powerful sunburnt fellows, up to the middle in water; a sheep is forced in by a man on the bank; it is seized by the first washer, who, laying fast hold of the fleece, souses the poor creature about as if he would shake it to pieces; he then loosens his hold, and the bleating animal, as he begins swimming towards the shore, is seized by the second washer, in whose hands he fares no better than he did whilst an unwilling prisoner to the first. He bleats more pitifully, and just as he is within a few feet of the shore, souse he goes over and over for the third time — and then he is at liberty. He reaches the bank, and there stands bleating, while the water flows from his heavy fleece. Others who have undergone the same fate bleat in reply; while the unwashed ones are not a bit behindhand in their complainings, for a hundred sheep 'baa' like one.

"Then what a roar of laughter comes ringing upon the air at the sturdy shepherd-boy, who, while thrusting and forcing along some obstinate sheep to the edge of the water is carried in headlong with his woolly companion, and, by an unexpected plunge, both are sent head over ears together, and land alike with a kindred and sheepish look.

"We have seen pictures in which sheep-washing and sheep-shearing (or clipping, as the farmers call it) are represented together; as if it was only out of the water and then under the shears. Sheep are never clipped as soon as they are washed; if they are dry in three or four days, they clip hard and 'husky,' and far from easy; but if they stay ten or twelve days after the washing, the oil returns into the fleece, and then the shears move quite free."

Our illustration will show that the washing of the fleece, as we have seen it, is performed by means of a piece of wood fixed across the end of a pole. With this the animal is scrubbed vigorously; and when he gets near the bar that may be noticed stretching from side to side an inch or two above the surface of the water, he is ducked under completely by a good push at the nape of the neck. When he comes up again he finds himself close to an inclined path, by
which, without delay, he regains the land, his general expression as he emerges denoting anything but satisfaction at the treatment he has undergone.

The quotation from the poet which we have placed at the commencement of the chapter speaks of “the clear river” and “the limpid stream.” These expressions may be appropriate before the sheep-washing has begun, but the process soon discolours and sullies the water extremely, and it is some time before it recovers its purity. One effect of this is to sicken the fish to such a degree as to seriously interfere with the angling for the time.

Our vignette, sketched “in the leafy month of June,” was suggested by these lines of Keats:

"Trees old and young, sprouting a shady boon
For simple sheep."
CHAPTER XI.

THE WRECK ASHORE.

"The first strokes that the oars struck
Were over the broad leas,
The next stroke that the oars struck
They pushed beneath the trees."

D. G. Rosetti.

As the children of rich people, born and bred in cities, play at making morning calls, shopping, and giving parties, so do all the other little folks, with the varying circumstances of their respective homes, enjoy their own world of "make-believe." Indeed, when one thinks of what the favourite toys of children are—dolls, tin soldiers, bricks, rocking-horses, &c.—and that the books that charm them wholly are the most extravagant of fairy tales, it would appear that the child lives a great proportion of his time in the world of fancy. It is somewhat mortifying to consider how little imagination we adults are blest with, compared to that of which we must, at one time, have been the happy possessors.

The work of their parents, whatever it may happen to be, is the first occupation that children naturally take to playing at. In the case we have illustrated, the fisherman’s lucky youngsters have found an old punt left high and dry by the floods of the previous winter, and are hard at work. A clothes-prop serves the boy for a punting-pole; while his sister rows steadily, with a broken bough for an oar. The two other juveniles have been taken on board
THE WRECK ASHORE.
as passengers, along with the dog, though the latter does not keep up the character so well as might be wished. He, perhaps, has his world of imagination, and, as Montaigne said of his cat, probably thinks that human beings are provided solely for his amusement.

There are few things, however worthless in appearance, that may not be turned to some account, if only a use is sought for them. The Thames Angling Preservation Society has by example shown what is to be done with decayed punts. At certain parts of the river the members have bought up all the old punts and sunk them in the different deeps, taking care to cover them pretty freely with tenter-hooks and to load them well with stones and gravel. Nothing can form a better harbour of refuge for the fish and their brood than old punts thus deposited in suitable places. The driving in of stakes is also recommended for furthering the same object, and is, no doubt, a very useful expedient; but the stakes can be drawn, while the moving of a punt sunk in the manner we have described would be a task of much greater difficulty. This is really important; as, year after year, the great strongholds of the fish are being destroyed by holes being filled in, old stumps and heavy bushes cut down, wooden camp-sheddings demolished, and in their place smooth concrete facings placed along the bank.

If an old punt left by the floods is not devoted to this purpose, the probability is that in most cases the floods of the ensuing winter will break up the wreck and bear it away piecemeal.

A letter that was published in the *Times* of November, 1872, contained the following observation with reference to the occasion of the overflowing of the river in this district: "Little flood may be expected in the Upper Thames when the rain comes from east and north-west; whereas, had it been from south and south-west the flood would have been considerable." A careful register of such facts would, we think, be of great value.

Other notes with reference to the floods will be found in our chapter on Ballasting.

Our vignette on the next page represents the vole, or water-rat as it is commonly called. In "My Garden," Mr. Alfred Smee says, concerning this
animal: “It is really not a rat, but a small species of beaver. By making holes for itself in the banks of streams, and thus undermining them, it does considerable mischief. It is a vegetable feeder, and the statement that it is in the habit of devouring fish is a false charge. The roots of my trees are sometimes gnawed by it; and rarely a winter passes without an apple or a nut tree having its roots cut within a few inches of the stem. When the vole takes to the water, the air adheres to the fur of the animal, and as it glides through the water a silvery object is presented to view, which has puzzled many persons: in this respect it resembles the water-shrew.”
CHAPTER XII.

THE DIPPING-PLACE.

"... As sweet as milke, as clear as glasse."

JOHN TAYLOR (the Water Poet, 1640).

The dipping-place, or dipping-hole, as it is perhaps more frequently called, is the usual substitute for a well or pump in the case of the poorer classes living close by the river. The idea of drinking the water of the Thames is no doubt very repugnant to those who may live near town; but in the case of our up-river friends much pity need not be wasted on that score. The perfect clearness of the river is at times quite startling, the varied colour of "the enamel’d stones" being distinguishable at great depth.

The verses in Charles Kingsley’s “Water Babies,” on this contrast between different states of the same stream, are so beautiful that the introduction of them here needs no apology:—

“Clear and cool, clear and cool,
By laughing shallow, and dreaming pool;
Cool and clear, cool and clear,
By shining shingle, and foaming weir;
Under the cag where the ouzel sings,
And the ivied wall where the church-bell rings,
Undeiled, for the undeiled;
Play by me, bathe in me, mother and child."
"Dank and foul, dank and foul,
By the smoky town in its murky cowl;
Foul and dank, foul and dank,
By wharf and sewer and slimy bank;
Darker and darker the further I go,
Baser and baser, the richer I grow;
Who dare sport with the sin-defiled?
Shrink from me, turn from me, mother and child.

"Strong and free, strong and free,
The floodgates are open, away to the sea;
Free and strong, free and strong,
Cleansing my streams as I hurry along
To the golden sands, and the leaping bar,
And the taintless tide that awaits me afar,
As I lose myself in the infinite main,
Like a soul that has sinned and is pardoned again,
Undefiled, for the undefiled;
Play by me, bathe in me, mother and child."

An old writer, speaking of "the incomparable relish and pleasant taste" of the fish in our river and one or two others named by him, gives the reason that, "by the opinion of geographers, it is because of their largeness, commodiousness, swiftness, stoney and gravelly soil, which makes their waters so pure, clear, and cristaline, and of so salubrious and nutritious a nature." The "swiftness" of the stream is a difficult thing to measure with accuracy. Owing to the natural obstructions which exist in many parts of the river from bends, shoals, islands, weeds, &c., the velocity of the river does not follow the law of the variation of its inclinations; and the artificial obstacles from weirs, locks, eyots, &c., render it impossible to ascertain the velocity correctly. Much depends also on the volume of water which may be passing down the river at the time, and the use of flashes.* The total fall from Lechlade to low-water mark at London Bridge, a distance of 146½ miles, is 258 feet; being, on an average, about twenty-one inches per mile. In general, the velocity may be estimated at from half a mile to two miles and three-quarters per hour; but the mean may be about two miles.

Mr. W. H. Brougham (Hon. Sec. T. A. P. S.) has made a suggestion to anglers with reference to the water which we think worthy their attention.

* See page 40.
It is that they should take the temperature of the stream every time they go out to fish, and so ascertain at what degree of the thermometer they have been most successful. In Mr. Brougham's opinion this might probably indicate the best periods for fishing of different kinds. At all events, we should be glad to hear of the suggestion being put into practice, as records of facts often turn out valuable for other reasons besides those primarily thought of.

During severe winters ice is sometimes formed at the bottom of the stream, and in this district is designated ground-ice.

We cannot conclude with anything finer than the following enthusiastic phrases by Dr. Mackay in the opening paragraph of his "Thames and its Tributaries." Speaking of the pure water of the river, he characterises it as "beautiful to the eye, refreshing to the touch, pleasant to the palate, and musical to the ear."

Wood-pigeons drinking.
CHAPTER XIII.

THE FERRY.

"A boat, a boat, 
Haste to the ferry."

OLD ENGLISH ROUND.

Of all subjects probably the ferry has been the one most frequently chosen by animal painters, from the opportunity it affords them of introducing their speciality into the picture along with figures. The various animals that, without violation of probability, might be passing over at one and the same time, give the painter a chance of getting more variety in a limited space than perhaps any other treatment of his theme would allow. It is almost as much prized by the landscape painters, who constantly avail themselves of the ferry as an incident giving life to the picture, and enabling them to get in the "bit of colour" that they seem generally to consider indispensable.

The ferry-boat, worked in the particular manner that we have chosen for our picture, is only in use high up the river. The rope, which has to be raised when a barge or other large boat passes under it, would be too much in the way if the traffic were considerable. In rowing on any river where this kind of ferry is in use, it behoves the steerer to have a sharp look out for the rope. This is frequently just at the level of a rower’s neck, and if run into unobserved, will give the man rowing bow a dangerous blow, severe of course in proportion to the pace at which the boat happens to be travelling at the moment. Other
ferries are worked with the ordinary punting-pole, or by means of a chain which lies at the bottom of the river, and is passed round the axle of a wheel on board the boat.

On several of the more rapid rivers that we have rowed down abroad there are ferries of the same description as in our illustration, but ingeniously worked by steering only; the pressure of the stream is employed as the propelling force, precisely as a sailing-vessel uses a side wind.

The tolls for horses vary, at the different ferries on the Thames, from one penny to threepence; some belonging to the Thames Conservancy are free for barge horses.

Foot-passengers are charged a halfpenny at all the ferries; and that the fare for each person was the same some three or four hundred years ago, we have the evidence of one of the "Hundred Merry Tales," printed by John Rastell in 1526. The tale is the seventy-fourth, and is to this effect: "A courtier and a frere happenyd to mete togyder in a fery boat, and in communyacyon betwene them, fell at wordys angry and dyspleasyd eche with other, and fought and strogled togyder, so that at the last the courtyer cast the frere over the bote, so was the frere drowned. The feryman, whiche had been a man of warre the moste parte of his lyfe before, and seynge the frere so drowned and gon, sayd thus to the courtyer, 'I beshrew thy hart thou sholdest have taryed and foughte with him a lande, for now thou hast caused me to lose an halfpeny for my fare.'"

This curious old book, from which we have before quoted, is interesting as being the only book that Shakspere has mentioned by name. In *Much Ado About Nothing*, Benedick suggests that Beatrice is indebted for her wit to the "Hundred Merry Tales:" much as we might nowadays allude to Joe Miller's jest-book.

The proper construction of ferry-boats was in old times thought a sufficiently important matter to be regulated by law. We find, for instance, in an Act passed in the reign of William and Mary the following:—

"That if any person or persons whatsoever, from henceforth do or shal make any whiry or boate, to the entent commonly to use rowing and carying
people uppon the sayd river of Thamis, whych shall not bee two and twenty foote and halfe in length, and lower foote and a halfe broade in the mydshyppe or which shall not bee substancyally and well hable and suffycient to cary two personnes on every side tyght accordinge to the old quantitie, scantlyng, thynknesse of boorde, goodnesse, and good proporcione, heretofore hadd and used: that then the same boat or boates, so being made contrary to the proporcione and sort before expressed, shalbe taken as forfayt, and shalbe forfayt, ye one halfe thereof to the Kinge and Queenes majesties use, and to the use and successours of the Queenes majestie, and ye other halfe to him or them that will sue, &c., wherein no wager of lawe, &c., shalbe allowed.”

The box-like arrangement of boards in the foreground of our illustration, of which the ducks seem to have taken temporary possession, is for use as a landing-stage when the river rises above the level of its banks.
CHAPTER XIV.

FEEDING DUCKS.

"Where the duck dabbles 'mid the rustling sedge,
And feeding pike starts from the water's edge."

Wordsworth.

The farther up the river one proceeds, the more important does one find the rearing of the common duck to be to the ménage of those living on the banks. By the time we reach that part of the stream at which the navigation ceases, we find that the people count their ducks by hundreds. Having perhaps heard of this, one expects to see great numbers of them; but as they separate into companies of ten or twelve, and are scattered over large marshy and swampy districts, their numbers would never be suspected.

It is only while they are very young that they are fed and housed, chiefly with a view to protecting them from their natural enemies—the rat, the weasel, the hawk, and the pike. The ducklings are carefully fed on cold boiled oatmeal porridge, cooked vegetables mixed up with barley-meal, crushed oats thrown into water, and a little milk when convenient. As soon as they begin to be fledged they are turned out to get their own living, and are usually left unmolested by their owner till they are wanted for the table. He knows the haunt of each drake, and carefully notes the number of ducks in its company, so that if any should be missing he is soon aware of the fact.

Of course, they often appear in one's bill of fare in these parts; and we
have found them excellent, having just a suggestion of the wild-duck flavour that the nature of their food has induced. The rearing of them must be a source of considerable profit, attended with very little outlay indeed.

A brood generally attaches itself to the homestead, and is, by a pleasing fiction, often supposed to belong to the children of the house, who may be seen sharing their bread-and-butter with their pets. One day we saw an old drake come silly behind a little girl and make off with the whole slice, instead of sharing the crumbs that were being given to the ducks, and we have accordingly made the incident serve as our illustration to this subject.

The white breed of ducks represented in our drawing is the kind known as the Aylesbury, and is the highest in repute throughout the district. From Miss Watts's capital little work on poultry we glean the following facts concerning them:

Aylesbury ducks must be very large, perfectly white in plumage, with yellow legs and feet, and flesh-coloured bills. Dark spots or streaks on the bills have lost many fine pens their prizes. Such blemishes may arise from the ducks frequenting peaty land; to get fair, unsullied bills is a great trouble to exhibitors. A good pen of three—drake and two ducks—will weigh twenty-three or twenty-four pounds; even twenty-six pounds and a quarter has been reached. Early ducks for the London market are brought up in great numbers by the cottagers of Aylesbury and other parts of Buckinghamshire, who rear them with the greatest care, sharing their cottages with them.

Rouen ducks, which in plumage resemble the wild duck to a great extent, are next in repute to the white ducks, and are more often met with on the river, though little trouble is taken to keep different breeds distinct: the reason being that the fishermen never rear ducks with any intention of exhibiting them. Most of the common ducks lay eggs with a green-tinged shell, but the pure-bred Aylesburys lay quite white eggs.

Oats, whole or bruised, thrown into a pan of water, are the chief means used for fattening ducks. The desired result is obtained without difficulty: they are so willing to aid the work themselves.

It is a mistake to rob the duck of her privilege of sitting and rearing her
own little ones, for the following reasons: When judiciously placed, not unnecessarily interfered with during sitting, and circumscribed in her ramblings with her ducklings when she gets them, she is a good sitter and a good mother. Ducks hatched and reared by a hen, bear out the old game-fowl breeder’s ideas of the sitter’s influence on the brood she hatches and rears, and are not good as stock-birds, like those incubated and reared by their own kind. Mr. Hewitt, and other authorities equally to be depended upon, state that ducks reared by hens are particularly troublesome and mischievous in a farmyard, from preferring the companionship of hens to that of ducks.
CHAPTER XV.

THE FORD.

"Across the splashing ford the beasts plod on;
Foot follows foot, while the dark and shallow stream
Flashes beneath their fetlocks."

Bowles.

FROM the general appearance of the current of the Thames and its many gravelly shallows, it must naturally have been as well suited for fording as most rivers. However, at the present day, the ford, as a fact, is nearly obsolete on the Thames; as a word, it still survives all along the course of the river, and is an interesting example of what Dr. Trench so aptly notes as the "history in words." There is a considerable number of towns and villages in its neighbourhood with their names terminating in this syllable; and these places were all, no doubt, originally what their names imply. The reasons for the disuse of the fords as a means of crossing the stream are not far to seek. It was, in the first place, doubtless the establishment of the ferries, as being more commodious and less dangerous than the fords, that led in most cases to their gradual abandonment. The ferries, again, in their turn, have nearly everywhere yielded place to bridges—first, probably, wooden ones, then stone, down to the ugly suspension-bridge of our own iron age.
THE FORD.

"What man that sees the ever-whirling wheel
Of Change, the which all mortal things doth sway,
But that thereby doth find, and plainly feel,
How Mutability in them doth play
Her cruel sports?"

The efforts that have been made for the improvement of the stream as regards the navigation have done more perhaps than anything else towards abolishing the fords. In a previous chapter we have referred to the introduction of the lock and weir system as having, by deepening the shallow parts of the river, altered the character of the stream in a manner prejudicial to the well-being of the trout. At the same time many of the fords must have, by this alteration in the depth of the water, been rendered impassable. Besides this, the ballasting of the channel, so as to make it sufficiently deep to carry a loaded barge, has put fording almost out of the question, unless for a short time during exceptionally dry seasons. The draught of water required for a loaded barge is usually reckoned at about two feet and a half.

Though, from the reasons we have stated, well-nigh banished from the main stream, fords are still occasionally to be met with on the different tributaries of the Thames. Perhaps the spot which has been most frequently found available for the purpose is at a short distance below a mill-tail. Here the gravel and sand usually silts up so as to form a wide shallow extending all across the stream—the very place for a ford. Many of our landscape painters have selected the ford as a subject for their art, and have generally found that it makes a pleasing picture. Engravings of such scenes have always appealed successfully to the English taste. Callcott's well-known painting has been many times reproduced by engraving on steel, copper, wood, and by chromo-lithography, and seems bound, at intervals, to reappear in the shop windows. Lately another engraving of a ford has been published, which bids fair to be equally popular. If we recollect rightly, it is the joint work of Messrs. Creswick and Ansdell, and bears the pleasant title of "The Shortest Way in Summer-time."

The river is still occasionally forded by the hay-carts when it so happens that the meadow is the other side of the stream from the homestead, and there is no bridge available without a long journey round. It was one of these
instances that gave us the opportunity of sketching our illustration to this chapter.

We might here give an account of how Julius Cæsar and his army crossed the river at a ford which they found to have been "staked" by the Britons, but the spot * at which this event occurred is farther down than our limit, and the incident itself is hardly within the proposed range of our treatment of these subjects. Moreover, a very interesting narration of the circumstance is to be found in Mr. and Mrs. S. C. Hall's "Book of the Thames," to which charming work we have much pleasure in referring our readers.

* The place is still called Coway Stakes.
CHAPTER XVI.

WATER-LILIES.

"... Level lilies." Keats.

GREAT white water-lily is the English name under which the Nymphaea alba is found in our botanical books, and this simple wording has always seemed to us more really poetical than the "queen of the waters," and other grand titles by which it is intended to do it honour. The plain words great white water-lily are perfect in description, calling up the plant to one's mind as no other phrase does; and, moreover, seem to us suggestive of a beauty "large, and languishing, and lazy." To bestow grand epithets here would be to bring one too literally under the charge of painting the lily and gilding refined gold.

The name Nymphaea is said to have been given to the plant on account of its growing in places which the nymphs were supposed to haunt: a supposition crediting the water-nymphs with undeniable taste.

The landscape-gardener has often availed himself of the water-lily as an ornamental plant when the bed of a lake or pond may have been suited for its cultivation. Both this species and the yellow water-lily* may be easily grown in pools or such slow streams as have a muddy and not a gravelly bottom. The best method of propagating these plants is to procure some of

* Nuphar lutea.
their seed-vessels just as they are ripe and ready to open, and to throw them into the water. The seeds will sink to the bottom, and the following spring the leaves of the young plants will appear floating upon the surface. When they are once fixed to the place, they will multiply exceedingly, so as to cover the whole pool in a few years. They may also be cultivated in large troughs or cisterns of water, having earth at the bottom, and will flourish very well in them, annually producing a great quantity of flowers. The roots, which are frequently the size of the human arm, are said to have an astringent, bitter taste, and to yield a dye of a chestnut or dark brown colour, which is used in Ireland and the Highlands of Scotland. This plant is a native of most parts of Europe, flowering in July and August. Both it and the yellow water-lily are called watercan or candock, and watersocks in some counties of England.

For a luxuriant growth of this plant, as before stated, the chief requirements appear to be deep water with a soft soil below, and little or no stream. It so happens that the many back-waters on the Thames fulfil these conditions to a nicety, and consequently our favourite comes to such perfection in these places as we have never elsewhere encountered.

The back-waters of the Thames! To those who know the river well, what pleasant spots and good times must these words recall! Each person is confident that he knows certain nooks which surpass in beauty anything that any one else may be acquainted with; and so seldom are these sanctuaries invaded that the enjoyment is enhanced by the feeling that one is the real possessor, who, as the French proverb says, is often quite other than the proprietor. The sentiment of stillness, repose, and delightful retirement from the busy world, is none the less pleasant because one is not quite out of earshot of a traffic that passes up and down the quiet highway. One hears, perhaps, the distant smack of the whip, as

"By the margin, willow-veiled,  
Slide the heavy barges, trailed  
By slow horses;"

or it may be the regular splash of some light sculling craft as she suddenly comes into hearing, and then dies away with a rapidity that tells of straining muscles.
and active exertion, which seem the natural complement to our lazy enjoyment of the quiet. On the landward side, probably the sole sound will be "the ring-dove's plaint, moan'd from the twilight centre of the grove," with pauses

"So that a whispering blade
Of grass, a wailful gnat, a bee bustling
Down in the blue-bells, or a wren light rustling
Among sere leaves and twigs, might all be heard."

To those who may not be acquainted with the word "back-water," it may be as well to explain that it is used to denote a side-stream with no thoroughfare, there being some such obstruction as that caused by eel-bucks or a mill-dam. Occasionally, and they are the most beautiful, these back-waters are owing to natural causes, the obstruction being the neck of land which connects some tiny peninsula with one of the river-banks.

Besides the attractive beauty of the pure white and gold of the blossom, the leaves of the water-lily are, in their way, quite as fine studies of colour. Their under side has always a tint of purplish red, that looks well when by chance one leaf gets turned over amongst the others; but it is as the leaves approach decay that they assume what we may call their sunset hues. The shades of colour vary from pale lemon yellow to orange tawny, with frequently a ring of delicate green still left in the centre of the leaf. On this varied yellow soon appear black spots, which at first contrast splendidly with the ground, but afterwards, as they spread, "slowly moulder all." The size to which these leaves occasionally grow is somewhat remarkable. We have measured fine specimens when we have come across them, and have frequently found them to be as much as seventeen inches long; the largest of all that we have met with was over eighteen inches and a half in length by seventeen inches and a half in width. The comparatively still parts of the river, where these leaves abound, are generally favourite haunts of the pike, which may be often observed lying almost motionless near the surface.

The flowers rise above the water under the influence of light, and expand only during sunshine, in the middle of the day. Towards evening they close and sink beneath the surface. This fact in the natural history of the water-lily
has been noticed in Tennyson's daintiest of poems, and the lines to which we allude will fitly conclude our chapter:

"Now sleeps the crimson petal, now the white;
Nor waves the cypress in the palace walk;
Nor winks the gold fin in the porphyry font:
*    *    *
Now folds the lily all her sweetness up
And slips into the bosom of the lake:
So fold thyself, my dearest, thou, and slip
Into my bosom, and be lost in me."

Sedge-warblers.
PERCH FISHING.
CHAPTER XVII.

PERCH-FISHING.

"I in these flowery meads would be,
Their crystal streams should solace me,
To whose harmonious bubbling noise
I with my angle would rejoice."

IZAAK WALTON.

We cannot help half envying the all-absorbing earnestness with which a youngster can fish. To us "grown-ups," who say we are fond of fishing, the sport is at best but a lazy recreation, and but a half escape from dull care; while to him, for the time being, it is pleasure keen and intense, without a shade of afterthought.

John Younger has written with true sympathy of such a "laddie":—

"He's lord o' a' round him as far as he sees,
The rivers are his, and the tall forest trees:
Our lairds may entail them, and ca' them their ain,
But our first parents' richt does the laddie maintain.

"He's free as the lav'rock that mounts to the cl'uds,
Scare him frae the streamlet, he starts to the woods,
Enjoys with the squirrel, crab, nut, bush, or tree,
It can spang but a twig or twa higher than he."

As Thackeray said, he never saw an Eton boy without wishing to give him half a sovereign, so our heart warms to these young urchins, and we find them a hook or two or a stray piece of gut-line, and enjoy the look that the
pleasures of hope call up into the face. Your country lad is, no less than his sharper brother of the town, a willing picker-up "of unconsidered trifles."

Maybe our young angler is a truant from school, and, though we ought not to approve, we confess that it is somewhat consoling to reflect that he is, at all events, a pupil in the school where patience, the lesson of life, is taught. For angling does teach that lesson, and if our young friend has neglected his school-tasks, we will hope that, like the poet, he finds his "books in the running brooks."

Apparently he knows where the perch are to be caught, and has probably tried the deep water round the camp-shedding* before with good results, and so clammers on to the extreme post, reckless of the danger of his "perch." And if he should, in the exciting moment of striking a "big'un," lose his balance, he will only be taking his customary bath a little earlier than usual this fine summer's day. Towards evening we know that he and a troop of his amphibious young friends will make the water lively for an hour or two at the nearest sandy shallow, taking to the water as naturally, and swimming as easily, as water-rats. The thistles on the bank just coming into bloom, and the abundance of wild flowers, tell that it is the hottest time of the year, for the river-side is comparatively poor in its show of colour till after Midsummer is past. In the early part of the summer the general aspect of the banks is a somewhat monotonous green, delightfully broken, however, with the delicate blush of the fragile wild rose, and the bold stare of the ox-eye daisy.

"The Perch," says dear old Izaak Walton, "is not only valiant to defend himself, but he is a bold-biting fish; yet he will not bite at all seasons of the year; he is very abstemious in winter, yet will bite then in the midst of the day, if it be warm; and note that all fish bite best about the midst of a warm day in winter. And he hath been observed, by some, not usually to bite till the mulberry-tree buds; that is to say, till extreme frosts be past the spring; for, when the mulberry-tree blossoms, many gardeners observe

* A word of doubtful etymology, sometimes spelt camp-siding: it is loosely used to designate any wood-work at the side of the water.
their forward fruit to be past the danger of frosts; and some have the like observations of the perch's biting.

"But bite the perch will, and that very boldly. And, as one has wittily observed, if there be twenty or forty in a hole, they may be at one standing all caught one after another; they being, as he says, like the wicked of the world, not afraid, though their fellows and companions perish in their sight.

"And if you rove for a perch with a minnow, then it is best to be alive, you sticking your hook through his back fin; or a minnow with the hook in his upper lip, and letting him swim up and down, about mid-water, or a little lower, and you still keeping him to about that depth by a cork, which ought not to be a very little one; and the like way you are to fish for the perch with a small frog, your hook being fastened through the skin of his leg, towards the upper part of it; and lastly, I will give you but this advice, that you give the perch time enough when he bites; for there was scarce ever any angler that has given him too much."
CHAPTER XVIII.

CARRYING OVER AT A WEIR.

".... Ambagibus errant."

OVID.

It occasionally happens that some of the up-country weirs are not to be passed through without considerable difficulty. It is often wiser, and saves time, to drag the boat over (if you can), rather than pass through; but this must be a matter for consideration at the time. In ascending the stream, the chief difficulty at these weirs arises from the fact of only a few of the paddles and rimmers being removed for the passage of small boats. The consequence is such a rush or fall of water that it is impossible to make headway. The best way to get up is to fasten the tow-line to the head of the boat, and gradually pull her through. The weir-keeper generally stands on the bridge, and, with a boat-hook or a long pole, guides the boat and helps to get it up. As a rule, unless all the weir-paddles are removed, you will not get through by any other method. Going down is different, and much easier, though, to inexperienced persons, somewhat dangerous. The main point is to row very steadily, keeping the boat's head straight to the centre of the opening, just before reaching which the oars must be shipped; the oars should, however, be kept ready to be used the moment you are past, as the stream rushing through sometimes causes a strong back current.
CARRYING OVER AT A WEIR.
CARRYING OVER AT A WEIR.

Carrying over is frequently necessary when locks are undergoing repair. In this case the workmen usually drag the boat over for the rowers, and the toll has to be paid just as if the boat had passed through the lock. We may add that the toll is due when a lock is passed under any circumstances, so that avoiding the lock itself by carrying over, or by passing down a side-stream, is an evasion of a legal charge.

When carrying over is decided upon, it is advisable to lighten the boat as much as possible by taking everything movable out of it. It is then hauled up by the painter and the bows, and a roller placed under the keel; as more of the boat is got on to the land, another roller is placed under the keel at the bows as before. These rollers facilitate the passage of the boat over land very much, and, if proper ones are not at hand, almost any piece of wood will do as a substitute; the great thing is to make the boat slide on an even keel and not on its side.

For the purpose of travelling, a boat built of pine is preferable to one of oak, on account of its greater lightness; when much carrying over has to be done, it will be found that the difference in the exertion required is considerable. Travelling on this and other rivers is becoming yearly more and more fashionable. We would refer any of our readers who may contemplate a first cruise to Taunt's Map and Guide of the Thames, not only for the information implied in its title, but for a variety of hints that will be found useful to a travelling crew anywhere. With reference to the weirs, we have availed ourselves of some of its pages, which we found both practical and concise. Mr. Taunt's plan, in preference to camping out on the bank, has been to fit his boat up for sleeping in, and he seems to have found it answer admirably. His method is as follows:—

"When arranging for the night the awning is raised and fastened, then a side covering of good plain duck, secured with strings all round to the iron which holds the awning, and fixed below the seats of the boat with loops to buttons, thus completely enclosing the middle part of the boat. Between the side seats we place boards, fitted on purpose (these go on the side seats, under the cushions, in the daytime), and the cushions on the top, with our
carpet-bags at the head, form the mattress, which is made complete by a rug thrown over, and blankets or rugs make up the interior of our sleeping-room. On the outside a line is stretched from mast to mast, and on this are threaded the rings of a waterproof, each end ring being stretched to its mast, and eyelet-holes in each corner fastened to buttons on the boat. Thus we have a watertight, dry sleeping-place, and anything but an uncomfortable one.

“We found it a very great advantage to have two short iron ripecks, with cords attached to the head and stern of the boat: these moored us to any place, and were convenient at all times. We need hardly say, do not moor on the tow-path bank, or you may chance to find yourself in a mess from the towing-line of some passing barge catching in your upper works.”
CAMPING OUT.
CHAPTER XIX.

CAMPING OUT.

"... Sub Jove frigido."

HORACE.

For ourselves, we must confess that the idea of camping out at the side of the river has never possessed sufficient attraction to counterbalance its many obvious disadvantages. The risk of rheumatism and concomitant evils is, in our opinion, too serious to be encountered for a whim. During the travelling that we have done on different rivers, we have always felt the cheerful light of an inn to be a pleasant change from the gathering gloom of evening out of doors. An "al fresco" lunch is, of course, quite proper, and nowhere more enjoyable than under "well-shading trees;" but if a man is really doing his work, rowing or anything else, he should at all events (when he can) dine well. We have no wish to disparage the many ingenious contrivances for cooking, the tinned and potted delicacies, &c., that our camping friends go in for; but, after all, they are but makeshifts, tolerable only when better are not to be had. There are cases—as at Henley, for instance, during the regatta time—when every inn for miles up and down the river is full to overflowing; then we allow that a tent is a very valuable addition to the impedimenta of a travelling crew. It removes the uneasy feeling that shelter for the night may not be obtainable, and gives the comforting assurance that, as a last resource, there is a house at hand that
can be crept into. However, like Charles Lamb, we give the preference to "the sweet security of streets."

After sundown all rivers have a weird, mysterious appearance, not, indeed, without a peculiar beauty, but of a kind that we should hardly characterise as cheerful. A river, when one is on it after dark, looks like a lake from which no outlet is discernible; and the water might be ink from its appearance. The hoarse roar of a weir is particularly unpleasant at night, when its distance and exact position have to be guessed at—"omne ignotum pro terribili."

On the other hand, when the days are at their longest and the moon is full, then, indeed, if the weather should be perfectly fine, we will grant that the river is most beautiful after sunset. To take a boat then, and lazily drop down the river, listening to the measured splash of the oars, has given us a sense of tranquil enjoyment, in its way, unrivalled. It is, however, a very different thing to plan a cruise in our uncertain climate with the detail of spending the night under canvas whatever the weather may be.

Damp and cold are the chief things to be guarded against in the case of camping out, as witness the following remarks contributed by the captain of the Rovers to Taunt's Map and Guide of the Thames:—

"Especial attention should be directed to the selection of a suitable piece of land (that on a very slight incline is preferable), but, above all, the exclusion of damp, the forerunner of acute rheumatism, should be carefully studied; a most terrible result may arise if this be not carefully attended to; and, although the land at the time of pitching the tent may be comparatively baked by a burning sun, yet, ere morning, a damp mist peculiar to the river will rise, that on many occasions has proved nearly fatal to incautious campers. The mere covering the earth by a rug is quite insufficient, and the most effective material recommended is Croggon's Roofing Asphalte; this, although rather large in bulk, is very light, and forms, when laid down, a most comfortable substitute for a mattress, and is thoroughly waterproof. It has been found that the ordinary mackintosh, though smaller in bulk, is not so well suited for the purpose."
"In conclusion, we wish to recommend to the attention of our readers the necessity of a plentiful supply of travelling rugs for coverings, as, although the heat in the interior of a tent is invariably oppressive during the day and evening, yet the atmosphere changes greatly in the early morning, and, without plentiful covering, the occupants would possibly receive a chill that might be productive of evil results."
CHAPTER XX.

BOYS BATHING.

"This is the purest exercise of health,
The kind refresher of the summer heats.

. . . . . Hence the limbs
Knit into force; and the same Roman arm
That rose victorious o'er the conquer'd earth,
First learn'd while tender to subdue the wave."

THOMSON.

SWIMMING, being a necessary part of the knowledge of self-protection, should be part of every child's education. It is clearly the duty of parents to see that their children are reared to make themselves at home in the water; if they neglect this, they do their children wrong. Great credit is due to the authorities at Eton for the system which almost ensures competency in this art to every boy in the school; the result being that out of a school averaging eight hundred, not one case of drowning has occurred for many years; and this, at a place where everybody seeks the river as his natural out-of-doors home, makes Eton probably the first gymnasium for swimmers in the world.

The manner of swimming properly is as follows: *—Supposing the bather to be in the water, he throws himself forward on his belly, his whole body

* The only really good treatise on swimming that we are acquainted with, is a set of six papers that appeared in Bell's Life in the winter of the year 1860-61. Our remarks are mainly extracted from this source, and we tender our best thanks to the able writer, who chose to remain anonymous.
being only just covered by the water, and no more; his hands are brought up under the chin, knuckles upwards, and with the first fingers touching each other; the whole palm is slightly contracted so as to form a concave surface, and the fingers are pressed closely together, to prevent the water escaping between them. Man's hands are his paddles, and they must become, as nearly as possible, watertight. The legs are drawn up as short and as near the body as possible; the breath is fully inhaled; then the stroke is made: the hands and feet are both darted forth to their fullest stretch at the same moment; the former are still kept close to each other, and the balls of the toes are made to touch, in which position they remain unmoved till the whole stroke is finished. The hands, fully extended, are then separated, and move round, each describing part of a circle, till they are opposite the shoulders, and then the stroke is finished. But observe that which is of most consequence: the exhalation of the breath begins with the stroke, and is slowly continued as long as the striking lasts; indeed, the quantity of breath determines how long the stroke will be, for it is taken only once at every stroke. It is very measuredly given out by a good swimmer; and all the time he is breathing forth, he brings his hands round, making the lungs and the hands work and cease together. The legs all the while, after the first rapid kick, remain stretched out rigidly, with the heels quite close to the water surface; thus a flat position is secured, which greatly conduces to speed.

The hands are only slightly propulsive; their chief use is to act as a cut-water—cleaving the way for the body, but much more to prolong the impetus given by the legs, and to eke it out to the utmost. The breath acts as a float to the whole, and cannot be too carefully husbanded and proportioned to the long sweep of the arms. A swimming stroke resembles that of an oar in its perfection, for it is quick forward, evenly pulled out, and the recovery for a new stroke is rapid; and on these two things, namely, lying truly horizontal just under the surface of the water, and proper treatment of the breath, the art of swimming depends.

In entering the water head foremost, or "taking a header," as it is called, the water should be struck by the forehead bone, just below the hair—
hands having first cloven the water, as shown in our drawing. The angle which the body should form with the water should be less than half a right angle, or from thirty-five to forty degrees. Then recovery upwards is rapid, and the appearance of the whole graceful. Adepts have brought this branch of the art to such perfection that they can jump into less than two feet of water without touching the bottom.

Bishop Selwyn, a great name among all Etonians, was a perfect master of this accomplishment, and became quite a model to aspirants in that way. Here are two of his feats when a private tutor at Eton. There was a thorn-bush overhanging the river above Windsor, of such dimensions that no one could clear it by jumping feet foremost; he, therefore, went at it with his head, throwing himself in a long curve clean over, and alighting, from a height of at least ten feet, in the perfectly composed and graceful attitude always preserved in his headers. It is related of him, when going down in a sinking boat, that he would not allow his feet to be first wetted, but, standing on his seat, took a dexterous header before the boat disappeared. Like Ulysses, from his raft he disdained to be swept off, but anticipated his ducking by a voluntary plunge, when, as Homer has it,

"Headlong he smote the sea with outstretched hands,
Eager to swim."

In fresh water a strong swimmer will move fully five feet and a half at every stroke, without great exertion. How many strokes he will make in a minute must depend on his breathing capacity; twenty-five to twenty-six would probably be the average. This will give fifty-eight yards per minute, or just two miles an hour; and we should think to accomplish that pace without distress would be a fair criterion of a good swimmer. At racing pace the strokes are much more rapid, exceeding fifty per minute; and the highest speed that seems attainable is thus eighty-eight yards, or exactly three miles an hour.

As to man's power of swimming great distances, it is not easy to give correct statistics. It is easier to rectify false popular notions on the subject.
Men have often remained many hours in the sea, swimming considerable distances for their lives; but the circumstances must prevent anything like measurement of the space traversed and time occupied. The truth is that to a perfect swimmer the length of his swim is solely a question of temperature. Cold arrests the swimmer, not fatigue.

A child's breathing is much more affected by immersion in cold water than is the case with an adult. If the breath be caught up painfully and convulsively, there is an end of all swimming at that bathe, for such condition of the lungs involves a great prostration of power. It is of little use to attempt a lesson with one of tender years, if the water be below sixty-five degrees.

As to the natural gifts requisite for making a good swimmer, they are symmetry and strength (especially of leg), but above all is needed a capacious chest. Only a frog can beat him in symmetry of motion. The frog is man's true model, excelling him, however, in one point of formation, viz., the knee-joint opening and shutting scissors-like and flat, not doubling up underneath as the human limb.

The method of teaching swimming by the use of the belt is shown in our illustration. It is an excellent plan, as the man holding the pole from which the belt is suspended can slacken it at pleasure, and even unloose it, without the pupil's knowledge, who thus learns to swim "before he knows it." Confidence, which is such an essential part of the business, is thus suddenly acquired, and progress is then generally certain and rapid. The use of corks or bladders is obviously without the special advantage of the belt to which we have called attention. Teaching to swim by this means is common at the seaside resorts in France, where it has been pleasantly called, "fishing for sharks with a human bait."

To one of our brother artists, Mr. J. P. Davis, who is quite an authority on all that concerns swimming, we naturally applied for some hints as to what to say on the subject of bathing in the Thames. From his letter in reply we extract the following passage, both on account of its hearty eloquence and the useful caution contained in it: "The best thing connected
with swimming is a dive into the foaming water of a weir, taking care not to go too deep; for if you get into the dead water under the swirl, it is difficult to get up again to the surface. But just catch the crest of the wave that forms under the fall, and you seem to get into living water, that seems quite aerated, and grasps you, and whirs you away, like young Romilly, ‘with a merciless force.’ The recollection of the bright summer mornings, when a little thin mist lay white over the sparkling water! Eheu fugaces! The rushing of the waters is sounding in my ears now—that recollection, I say, like Aaron’s rod, swallows all the rest.”
CHAPTER XXI.

RUSH-CUTTING.

"The water seyd yf ye lyste to seke me ye shal be sure ever to have me under a tofte of green rushys or ellys in a woman's eye."

Hundred Merry Tales.

More rushes, more rushes," are the first words of the last scene of Shakspere's play of *King Henry IV.*, Part II. They are spoken by "two grooms strewing rushes in a public place near Westminster Abbey," in preparation for the return of Henry V. from the ceremony of his coronation.

It was customary, before carpets were in general use, to strew the floors of halls, galleries, and chambers with rushes, in order to protect the trains of gowns and long kirtles from dust:—"Where's the cook? Is supper ready, the house trimmed, rushes strewed, cobwebs swept?" (Taming of the Shrew, Act IV. Sc. i.) Distinguished guests were always provided with a clean and fresh supply of rushes. Thus Lilly says, "Strangers have green rushes, when daily guests are not worth a rush." This last phrase has remained in common use, though its peculiar significance is probably known to few. The day of a church's dedication was called the Rush-bearing, from the ancient custom of carrying this plant to adorn the newly-consecrated edifice.

In our own time we find the rush appearing only in the most humble positions. The rush-bottomed chair and the farthing rush-light occur to the mind as indicating now the most familiar use of the plant for purposes of manufacture.
We have been told by those who cut and sell the rushes* that the coopers are great consumers of them, inserting them between the wood in barrels to prevent leakage. They are largely employed also in making mats and baskets. Cottages are sometimes thatched, and pack-saddles stuffed with them. They are of a soft, pliant texture, totally destitute of the roughness and cutting edges of many grass-like plants. Occasionally, in hard seasons, cattle will feed upon the rushes. The cutting and drying of them is a branch of industry usually carried on by the same individual who rents the fishing—a reach of two or three miles being generally about the extent of one of these water-farms, if we may use the expression. Our subject is the principal water-plant whose cultivation is attended to; the flag and reed, though somewhat in the same category, being little in request. It forms no exception to the general rule that water-plants are, from their position, rapid growers. The rush begins to show itself towards the end of April, and is full grown in June, blooming in July and August. The blossom is of a reddish brown colour, and the effect in a mass is striking from its contrast to the cool green of the rest of the plant. There is nothing more varied in picturesque effect than the rush, owing to the great difference that light, shade, and distance produce upon it—sometimes making it appear of a delicate greyish colour, almost blue; in other positions a vivid green; while, in comparison with surrounding plants, it often appears nearly black.

The rush harvest is usually in the month of August, when the cutter uses a reaping-hook fixed to a long pole, so that he may the more easily reach to the full length of the plant under the water. After having reaped his crops, so to speak, he ties them in bundles, and carries them home in the punt, to spread them out in a field near his dwelling. Here they are left to dry in the sun, as grass is for hay, and require no less attention. They take longer, however, in the process, being a fortnight or three weeks drying. The bundles are at one time placed together like sheaves of corn, at another time they are untied and the rushes laid out separately in long rows on the grass, presenting the appearance of curious dark bands across the meadow. In the first case

* The botanical name for the larger rush is *Scirpus lacustris*; of the smaller one, usually found in low-lying pastures, *Juncus conglomeratus*. 
a young tree is often chosen as the central support, and the arrangement has struck us as quaint and not unpleasing to the eye: our vignette at the end of this chapter illustrates the mode of drying the rushes.

From its original bulk when newly cut the rush shrinks a great deal. We found, from actual measurement, that a newly cut shock of sixty-eight inches in circumference diminished to forty-two inches—a considerable difference, showing how largely water must enter into the composition of its tissues. A dry bundle tightly tied, measuring forty inches round, is called a "bolt," and is sold under this name at an average price of one shilling. When stored in a barn or out-house, the rush gives forth a delicious perfume, somewhat resembling that of sweetest meadow-hay, but easily distinguishable from it. If not cut, the rush fades and withers at the approach of winter, presenting a peculiarly woe-begone appearance. Its one simple and beautiful curve is soon broken, and a bed of this plant in decay presents the appearance of a very tangled skein indeed.

We quote the following interesting paragraph on the rush from Sowerby's "English Botany," only with a protest against the "proverbial" expression "worthlessness," as not being in accordance with fact:—

"Rushes are met with in moist, barren soil in most parts of the world, but chiefly abound in cold and temperate climates. The almost utter worthlessness of the species in human economy is proverbial, but in that of nature they form an important series. Vegetating where few other plants can find subsistence, they assist in binding the loose sand upon the sea-shore, and cover the bleak and barren heath and moor with a verdure that, without them, must be wanting. In these situations they serve, by their thick tufts of leaves, to retain the light particles of richer soil which are washed by the rains from parts more elevated, adding to the collection by their own annual decay, until the unwholesome swamp or useless sand abounds with the necessary materials of fruitfulness and cultivation."

Though most of the beds of the rushes are of nature's growing, yet sometimes they are the result of the fisherman's forethought. They are propagated by seed, and a suitable swampy position is selected. At the season of the year
when the water is at its lowest, the seed is trodden into the soft ground of the “flam,” as such oozy places are called. The little plantation takes five or six years to grow before it is reckoned strong enough to be serviceable. A full-grown stock, however strong and healthy, is not cut oftener than every alternate year, as, if too rashly thinned, the bed will die away altogether.

The plant of our illustrations, *Scirpus lacustris*, is the bulrush proper of the botanist, but this name is often popularly misapplied to the reed-mace or cat-tail, *Typha latifolia*.
CHAPTER XXII.

BALLASTING.

"The Thames Navigation too is at a stand: Misomud and Anti-shoal must go to work again directly."

SHERIDAN'S Critic, ACT I. SC. 2.

By "ballasting" is meant raising the gravel, &c., from the bed of the river. The channel is thereby deepened, and the navigation consequently facilitated during the dry months: during the rainy season, the passage of the surplus water is thus materially assisted, and the chance of floods diminished. As to the extent to which the floods in this district might be prevented, Mr. Greville Ffennell writes as follows:—

"The conditions, which have to be taken into account, if thoroughly examined, might render a knowledge of the approach of floods a matter almost of certainty. It is, however, still a source of reproach that the possibility of their occurrence should be admitted above Oxford, as these inundations are directly the result of mechanical obstructions capable of removal. Indeed, certain alterations and doubtless improvements of late years had caused a few of our sanatory reformers to indulge in the hope that a flood in Oxfordshire had become merely matter of history. The last week's experience must, however, have dispelled such a delusion; and those who are not satisfied with evidences from terra firma have but to look around from the leads of the Ratcliffe Library to witness the great extent to which the inundation reaches, affecting, as it does, not only the counties of Oxfordshire, Berkshire, and Buck-
inghamshire, but those of Northamptonshire, Gloucestershire, and Warwickshire, which supply the respective rivers of the Cherwell, Wenlode, Isis, Ray, Thame, Windrush, and other important watercourses of the Upper Thames valleys. Dr. Acland, about the year 1850, pointed out the serious natures of these floods in an able work, taking for his text, 'How much our climate affects the heads and hearts, especially of the finest tempers, is hard to be believed by men whose thoughts are not turned to such speculations.' This eminent physician further drew these inferences from a series of most carefully arranged statistics: 'First, that the inhabitants of the Isis and Cherwell Valleys, and of the lesser tributaries which pour into them, would have better health if the ground they live upon were drier. Secondly, that the owners and the cultivators of these same lands would have fuller purses if the waters were under so regular and complete control as to avoid, as far as possible, the extremes of over saturation and of drought respectively.' This was printed nearly a quarter of a century ago! and it was then conceded that 'both the University and the city are becoming fully alive to these conclusions; and it remains only for the occupiers of land to join committees already formed by members of these two bodies,' &c. Yet Oxford is now, in 1874, literally surrounded with water, which subjects those who would go from place to place to take boat over what ought to be dry land, or to make considerable detours if on foot or by horse. Many have followed Dr. Acland in this good work, notably the energetic town clerk of Oxford, Mr. G. P. Hester, who, being moreover a practical angler, and well acquainted with the whole of the aquatic districts in question, might be presumed to bring convincing experience to bear wakefully upon the slumbering faculties of those most interested. Then came Dr. Haviland, with his fever and cancer maps of the Thames valley, showing beyond a doubt that the inner margins of these visitations defined the ravages of these diseases as clearly as it was possible to trace them. And all this to no avail, for the infliction is as great as ever. Well may it be asked by visitors to this otherwise most beautiful and highly favoured town: How is it that a city situated on the chief river of a kingdom such as England, should be subject to evils of which a small Dutch farmer would be ashamed?
that, around a university town—a centre, therefore, of knowledge and intellectual progress—up to nearly the end of the nineteenth century, such a state of things should be allowed to exist?"

To much the same purpose wrote John Taylor more than two hundred years ago:

"Were such a business to be done in Flanders
Or Holland 'mongst th' industrious Netherlanders,
They to deepe passages would turn our hils,
To windmils they would change our water-mils,
All helpers unto this river they would ayd,
And all impediments should be destroyed."
CHAPTER XXIII.

GUDGEON-FISHING.

"Come live with me and be my love,
And we will some new pleasures prove
Of golden sands and crystal brooks,
With silken lines and silver hooks."

DR. DONNE.

Perhaps it may occur to some of our readers that such occupations as this, and one or two others that we have drawn, can hardly be classed as illustrations of the industries connected with the river, of which this series mainly consists. We would reply, that though to those who hire the punt and man for the day, and sit comfortably discussing at intervals the merits of pigeon-pie and claret-cup, the term "industrious" would be somewhat ludicrously misapplied, yet to the man (hired with the punt) it is quite another thing. What may be sport to us is serious work to him, and probably not that part of his work most to his taste.

Roach, barbel, and gudgeon fishing present much the same appearance to a casual observer. All three are best carried on from a punt at a spot which is, by experience, known to be a good swim for the respective fish. In gudgeon-fishing it is chiefly necessary to rake the bed of the river well, to plumb the depth, and to let the bait (a small red worm) just touch the bottom. Raking the ground, and now and then throwing in a handful of river-sand, are found to attract the gudgeon sufficiently, without the use of any other
GUDGEON FISHING.
ground-bait. It is said that gudgeon are soon satiated, as their digestion is slower than that of most fish. Thus to throw in any other food than the bait on the hook would be attracting the fish to little purpose.

The man habitually sits astride the well of the punt with a flower-pot before him, in which are the worms for bait. He is thus ready to detach the fish from the hooks as soon as caught, dropping them into the well, and rebaiting the hook, if necessary. The poles to which the punt is tied are called ri-pecks, and they, as well as the punting-poles, are young larches grown for the purpose. Ash or birch are used when the larch cannot be obtained, but the latter is far preferable. This wood is found to resist the water, almost for ever, without rotting. The piles of this timber, on which the houses of Venice were built so many hundred years ago, are still as fresh as when first put in. Stakes of it have been tried in the decoys of Lincolnshire, which, between wind and water, have worn out two or three sets of oak-stakes without discovering any symptoms of decay. The best larches for this purpose are grown on the side of hills, thinly planted. They are then said to run up well, and to become both flexible and tough.

But to return to our gudgeons. As many as twenty dozen of these little fish are occasionally taken in the day. They are considerably in request for the breakfast-table at the hotels on the river-banks, and are purchased from the fishermen at sixpence the dozen.

Gudgeon are much used as bait when trolling for jack, and as a live bait for various large fish. When the fisherman requires them for this purpose, he seldom has recourse to the rod and line, but employs the casting-net, which soon supplies him with as many as he wants.

Old anglers tell us that the gudgeon are on the decline in the Thames, both as to number and size. They "remember the time" when eighty dozen were to be taken in the day by the party in one punt. "Now, at the present time, in a take of fifteen or sixteen dozen, it is seldom a really sizable fish gets in the wells. If the extremity of the bye-laws of the fishery were carried out, every gudgeon fisher, as he carries away his fish, would be indictable for taking unsizable fish. The gudgeon are largely required as bait for the
anglers, and where minnows are not always to be had, they have to supply their place. Thousands upon thousands are annually used as bait for night-lines, and every effort should be made to prevent such an annihilating agency from being employed at all. In addition to the frightful destruction of gudgeon and other small fry, trout and other valuable fish are caught on the night-lines. Let the fishermen be permitted to lay their weels in any portion of the river, but make the laying of night-lines a punishable offence. The eels themselves consume vast quantities of gudgeon. Some few years ago a fisherman cut open two eels in my presence, and we found nearly a dozen gudgeons in them.” (W. H. Brougham. The Field, Sept. 20, 1873.)
CHAPTER XXIV.

BURROW-HURDLE.

"Wide rent, the clouds
Pour a whole flood; and yet, its flame unquench'd,
The unconquerable lightning struggles through,
Ragged and fierce."

THOMSON.

THE great extent of some of the meadows by the side of the river, renders the burrow-hurdle, as it is called, a necessity for the boy whose duty it is to mind the herds there pastured. For instance, the field in which our sketch for this subject was made is more than three hundred acres in area, and is without any trees except those situate at its extreme limits. Were it not for the temporary protection afforded by his burrow-hurdle, the poor boy would be absolutely without shelter, "come rain, hail, or shine" (his own expression), when in the middle of this great meadow.

It frequently happens that certain people have privilege of pasturage in these cases, similar to common rights, which extend only to particular parts of the meadow. The boundary lines of these properties are accordingly marked by large white stones, placed at some distance from each other, and crossing the field in different directions. It is, of course, the lad's business to see that the cattle belonging to the various owners do not stray from their proper ground. Reeds of the previous year's growth and sedge thickly matted
together form the thatch of this simplest of roofs, which is supported by a
single pole placed at such an angle as naturally enables the weight it carries
to keep it in position. It can be moved round, with very little exertion, just
as inconvenience from sun or wind may render desirable.

On one occasion, when we gladly took refuge under a burrow-hurdle from
a passing thunder-storm, and chatted with the rightful tenant, we told him
that we thought his life a very pleasant one, and that when painting failed
we intended to take to cow-keeping. He seriously advised us to think twice
before deciding, telling us confidentially that "cows is the most mischiefful
beastes as is." We were somewhat surprised at such a sweeping assertion,
as we had always regarded the placid herd as of a totally opposite character;
but we gathered from our young friend that the demon of mischief haunts
them with an inordinate longing for "fresh fields and pastures new." When
making for a gap in a hedge, it seems, they display considerable cunning.
Proceeding slily at a very measured pace, and stopping occasionally to divert
suspicion, till they have gone too far to be overtaken, they suddenly make
a rush for it, as fast as their legs can carry them. The boy assured me
that, on these occasions, they calculate distances wonderfully. Troubles arise
too from the fact of part of the meadow bordering on the river. It often happens
that a bull from the other side will swim the stream and have a battle royal
with the autocrat of the neighbouring herd. As one might guess, it is a task
of no slight difficulty to separate the combatants and to beat back the intruder
to his own territory. Again, owing to the banks of the river being undermined
by the rats and washed away by the current, a cow or sheep feeding close to
the edge sometimes falls into the water. The boy has then to run quickly to
fetch assistance, in order to extricate the animal before it gets drowned. Any
one who attempts to pull out a sheep in this predicament will, if not very
careful, find that he himself will be probably pulled in, owing to the additional
weight of the fleece when full of water; not but what the creature seems to have
sense enough to understand that one's intentions are friendly. We asked the
lad what were the names of the cows in his charge, and could not help being
charmed with his string of sweet old-fashioned names, that seemed to have
all the fragrance of the meadow about them, and doubtless have been borne by each successive herd since the days of Chaucer, and before. We can recall some of them, as Daisy, Damsel, and Dumpling; Blossom, Butterfly, and Beauty; Snowball and Strawberry; Primrose and Pretty-maid. These, "the sweetest of names, and that carry a perfume in the mention," are common to very many herds throughout the country at the same time; indeed, we have come across few others but what happen to be descriptive of some individual peculiarity of the animal in question.

On the Upper Thames the word "burrow" is used as an adjective in conjunction with other substantives; or "simply of itself," as in the expression, "Come here, it is more burrow under this hedge."
CHAPTER XXV.

MOOR-HEN SHOOTING.

"Where coots in mossy dingles hide,
And moor-cocks shun the day."

Shenstone.

The moor-hen, or water-hen,* is the most frequently seen of all the wild-fowl that are regarded as incidental to the Upper Thames. Its long legs, which dangle and touch the surface of the water into repeated circles, the glimpse of white feathers behind, and the sealing-wax-like spots of red that adorn the bill, render it easily distinguishable. It not unfrequently leaves the water to seek its food in the adjacent meadows. When startled, it runs with great rapidity, and dashes, half running, half flying, into the water, and either dives or skims over the surface to its rushy covert. We have known it run up the trunk of an old pollard-willow and shelter itself among the branches. Its toes are so long and spreading as to enable it to pass over soft ooze or even the flat leaves of the water-lily: and though they are neither webbed nor fringed, the bird swims well and dives readily.

The nest of the moor-hen is to be sought for amid the sedges and flags of the water-side, that furnish the materials of which it is composed, and screen it from casual observation. Sometimes it is placed upon a low, thickly foliaged, floating branch, or the stump of a decayed willow.

In the "Museum of Natural History," published by Charles Knight, it is

* Gallinula chloropus—Poule d'eau of the French.
stated that, with a view to concealment from the rat and snake, the moor-hen carefully covers up her eggs whenever she leaves the nest during the period of incubation. Our own observation has not borne out this statement; out of twenty or thirty instances in which we have come across a nest with eggs in it, on only one occasion have we found the eggs at all covered up, and then it appeared to have resulted from a gust of wind rather than from the prudence of the bird. It has occurred to us that a moor-hen may have taken the precaution mentioned in some case where the nest was made in an unusually exposed situation, and that the observer has too readily generalised from the single instance. More probably, however, the mistake has arisen by confusing the bird in question with the dab-chick (the little grebe), which really has the habit of concealing its nest so carefully as to make it extremely difficult to find.

To any one who may happen to go a cruise on the river above Oxford about the end of April, the eggs of the moor-hen make a satisfactory addition to the few luxuries attainable in this far from highly civilised part of the world. The egg (reddish white with brown spots) is a marked size larger than that of the wood-pigeon, and has a flavour not very unlike that of the guineafowl. As to the use of the birds themselves for the table, our own experience would not lead us to praise them for any delicacy of flavour; we will, therefore, echo the advice of Mr. Shandy when he says, "Carefully abstain, that is, as much as thou canst, from coots, didappers, and water-hens."

Mr. Gould, in his "Birds of Great Britain," has the following remarks as to the character of this bird that may be fairly introduced here as not generally known:—"Boldness and pugnacity appear to be part of the moor-hen's nature, and its quarrelsome disposition renders it an unpleasant neighbour to any peaceful bird that may live in close contiguity. This leads me to a trait in its character which will not redound to its credit: still it ought to be known. The moor-hen comes walking over the lawn, turning its head first to the right, then to the left, jerking its short, uplifted tail, apparently all peace and amiability; but should the chick of a fowl or pheasant or a duckling cross his path, a single stroke of his pointed bill lays the little innocent dead at
his feet, almost without a kick or struggle; and many losses to the keeper and the housewife have occurred which are not charged to the moor-hen."

Moor-hen shooting used to commence in different parts of the river either about the 12th or the 25th of the month of August. However, by the Act of Parliament passed last session (35—36 Vict. ch. 78) for the protection of certain wild birds during the breeding season, it is forbidden to kill or offer for sale the birds specified between the 15th day of March and the 1st day of August. The schedule to the Act has a wide range, comprising wild birds large and small, from the swan and the bittern down to the redbreast and the wren. There is a curious caprice shown in the selection of the seventy-nine species to be protected; for instance, the dab-chick and the water-rail are omitted from the list, while the coot and the moor-hen are included.

When out with a gun after the moor-hen, the assistance of a good retriever or water-spaniel is an absolute necessity. When the dog employed has started a moor-hen in the direction of the sportsman, the bird on catching sight of him will, in many cases, suddenly dive. Its course may be tracked by the air-bubbles that rise to the surface of the water. The bird itself may often be observed to come up quietly and remain perfectly still, with half its head out of the water. On two occasions when we have been out with a fisherman this has happened, and we have seen powder saved by a well-directed blow from a pole or long stick, which has either killed the bird or crippled it so that the dog could easily come up with it. Instead of taking to the wing, the moor-hen often tries dodging about among the rushes, and a good dog will often capture an unwounded bird.

As the subject of our chapter, though a wild bird, is not "game," it may be shot by any one in a boat licensed to carry a gun. A large majority of the moor-hens killed fall, however, to the gun of the fisherman, who will sometimes go so far as to speak of the parties shooting from boats as poachers. Persons shooting from the land would be liable to prosecution for trespass, and we have been given to understand that motioning with the hand to a dog on the bank is legally construed into trespass. When a party of the so-called poachers are about, the fisherman generally takes care to show himself with
his dog and gun, with the idea at all events of sharing the sport, if he cannot prevent it.

The fishermen usually respect each other's shooting districts, their custom being to consider the renting of the fishing, osier-beds, &c., as the natural limit to each man's preserves.

The water-rail (sketched on page 111) resembles in many points the moor-hen, between which bird and the corn-crake it seems to be the connecting link. As far as we know, the water-rail is only a winter visitant to the Upper Thames, and is by no means commonly met with.
CHAPTER XXVI.

DIBBING FOR CHUB.

"Of recreation there is none
So free as fishing is alone."

IZAAK WALTON.

WASHINGTON IRVING, in his "Sketch-book," notices how favourite a pastime angling is with us as a people, and it seems to have struck him as curiously consistent with the character of the landscape. The passage we refer to is as follows:—"As the English are methodical, even in their recreations, and are the most scientific of sportsmen, it has been reduced among them to perfect rule and system. Indeed, it is an amusement peculiarly adapted to the mild and highly cultivated scenery of England, where every roughness has been softened away from the landscape. It is delightful to saunter along those limpid streams which wander, like veins of silver, through the bosom of this beautiful country; leading one through a diversity of small home-scenery; sometimes winding through ornamented grounds; sometimes brimming along through rich pasturage, where the fresh green is mingled with sweet-smelling flowers; sometimes venturing in sight of villages and hamlets, and then running capriciously away into shady retirements."

Perhaps the most deserving of the terms, mild and methodical, is the mode usually practised of angling for chub from the bank, commonly spoken of as "dibbing." The process is graphically described by Isaac Walton, who sometimes calls the fish a cheven or chavender, and uses the word "daping" (now
DIBBING FOR CHUB.

Piscator says to his pupil, "Go to the same hole in which I caught my chub, where, in most hot days, you will find a dozen or twenty chevens floating near the top of the water. Get two or three grasshoppers as you go over the meadow, and get secretly behind the tree, and stand as free from motion as is possible. Then put a grasshopper on your hook, and let your hook hang a quarter of a yard short of the water, to which end you must rest your rod on some bough of the tree. But it is likely the chubs will sink down towards the bottom of the water at the first shadow of your rod (for chub is the fearfulest of fishes), and will do so if but a bird flies over him and makes the least shadow on the water. But they will presently rise up to the top again, and lie there soaring till some shadow affrights them again. I say, when they lie upon the top of the water, look out the best chub (which you, settling yourself in a fit place, may very easily see), and move your rod as softly as a snail moves to that chub you intend to catch; let your bait fall gently upon the water three or four inches before him, and he will infallibly take the bait. And you will be as sure to catch him; for he is one of the leather-mouthed fishes, of which a hook does scarce ever lose its hold; and therefore give him play enough before you offer to take him out of the water. Go your way presently; take my rod, and do as I bid you; and I will sit down and mend my tackling till you return back."

Should not a grasshopper, which is the most deadly of all baits for the chub, be procurable, a cockchafer or humble-bee will do very well; it is said that a cherry or a piece of cheese has been successfully employed in this manner, but we have never tried them. The expression "leather-mouthed" fish is applied to such as have their teeth in the throat, as the barbel, the gudgeon, and the carp; the skin of the mouth of these fish is much more tough than of others, as the trout or perch, from which the hook will frequently break away before the fish can be brought to land.

The chub are hardly to be taken in the manner described till after Midsummer, as they prefer staying in the deep water till the weather becomes very warm. A hot sun tempts them out on to the shallows, where they like

* The latter word occurs in the continuation of the "Complete Angler," by Mr. Charles Cotton.
to swim about slowly near the surface. They often make a regular round, visiting the same spots one after another, but never going far away from their hole, to which they retire on the slightest alarm, and immediately sink out of sight. As a rule they avoid the strength of the current, but like to lie near enough to it to be able to seize upon what insects may be carried down by the stream. A slight backwater, such as may be caused by the stump of a decayed willow, is a favourite resort with them. The very largest chub, however, are sometimes taken when the angler is spinning for trout in a mill-race or weir-stream.

When these fish happen to swim near a bank unsheltered by trees or bushes, it is a capital plan for the angler to lie at full length on the grass and project as little of the rod as possible. Dibbing for chub is very successful between five and eight o'clock in the morning in fine autumn weather; there being then little to disturb "the fearfulest of fishes."

Now that the trout has become so scarce in the Thames, the chub takes the first place in the fly-fisher's regard. A sorry substitute certainly, but affording good sport nevertheless. Among other reasons, naturalists attribute the decline of the trout to the great increase of the chub and the pike, which are believed to destroy the young fry to an enormous extent.

Fly-fishing proper, that is with the artificial fly, is little practised up the river by the country-people. It is more frequently visitors from the towns that "whip" under the willows from a boat in the middle of the stream, while the countryman fishes from the bank. The favourite artificial flies for chub are the red and black palmer, the alder, and the coachman. The two former are supposed to represent the common hairy caterpillar,* and consist simply of a cock's hackle twisted round the shank of the hook; the two latter have a thickish body composed of peacock-herl, the alder with a dark wing and the coachman with a white one. A very good caterpillar is made by omitting the wing of these, and only retaining the peacock-herl body, which is somewhat lengthened. An artificial bee or wasp is also good towards the end of the season.

* The larva of the tiger-moth.
In fly-fishing for chub, the chief points are to fish from a boat or punt, to use as long a line as you can conveniently manage, and to let your fly drop close to the bank (or bough) the first throw at each spot you try. The boat must be handled with great care, so as to make as little disturbance as possible, and to keep the angler as far from the bank as the length of his line will permit. When the weather is chilly, it is a good plan to put a gentle or small piece of washleather on to the fly-hook, and to let the line sink as much as you can in drawing it through the water.

Isaac Walton gives elaborate instructions as to the cooking of this fish so as to render it palatable: his principal directions are to cook it, if possible, immediately on its being taken out of the water; not to wash the blood out of the flesh more than can be helped; and to roast it, so as to dry the moisture out of it. The fact is, that the flesh is watery and poor, and the bones are many and large; and we cannot help fancying Piscator is making the most of his subject, after the fashion of a special pleader on a given topic. He puts into the mouth of his scholar this remark, after having partaken of a properly cooked specimen: “Trust me, ’tis as good meat as I ever tasted.” However, on another being caught, it is given to the milkmaid; and on a future occasion, when he unintentionally catches one, he exclaims against him for “a logger-headed chub;” adding, and “this is not much amiss, for this will pleasure some poor body.” On our offering the contents of our basket to some poor body in a village not far from London, she declined, with thanks, adding that she did not keep a cat. As a change of diet, some value is apparently attached to them, for we have ourselves more than once been asked for some we had caught, on behalf of an invalid wife or daughter of the person asking. The fishermen say they find a ready market for the chub, which are classed along with roach and dace as “coarse” fish, and sell uniformly at twopence a pound. A chub of four pounds is reckoned a very good sized fish; they sometimes indeed, but not often, exceed this weight by a pound or so.

Should the angler have a blank day (a rare event, to judge from the conversation one overhears of the brethren of the craft, he has the consolation of
an old writer,* that “atte the leest, he hath his holsom walk, and mery at ease, a sweet ayre of the swete savoure of the mede floures that makyth him hungry; he hereth the melodious armony of fowles; he seeth the yonge swannes, heerons, duckes, cotes, and many other fowles, wyth their brodes; whyche me seemyth better than alle the noyse of houndys, the blastes of hornys, and the scrye of foulis, that hunters and fawkeners and foulers can make. And if the angler take fysche, surely thenne is there noo man merrier then he is in his spyrte.”

* Dame Julyans Berners, prieress of the nunnery of Sopwell, near St. Albans.
CHAPTER XXVII.

SWAN'S NEST.

"Little Ellie in her smile
Chooses—I will have a lover,
Riding on a steed of steeds;
He shall love me without guile,
And to him I will discover
The swan's nest among the reeds."

E. B. Browning.

REEDS, flags, and rushes are the materials of which the swan's nest is mostly composed. Sticks are often added, or any other litter that may happen to be available; the nest is so loosely constructed that it presents a rather untidy appearance. From the fact of the birds naturally preferring the most secluded spots by the water, we more often find a swan's-nest on an eyot than on either bank of the river: the osier-beds are, perhaps, the localities most often selected by them. The eggs are six or eight in number, and are hatched in five or six weeks. The young birds are termed cygnets, and are covered with a greyish brown plumage, which is not entirely lost till the beginning of the third year. Though the swan is in general very gentle and inoffensive, the male bird will defend the nest with great courage, and advance to the onset with ruffled pinions and every demonstration of anger; nor is it, from its muscular powers, an antagonist to be despised. While the cygnets are very young, one or two of them will sometimes climb up on to their mother's back, who never sails along more proudly than when
her dusky brood is thus cradled between her snowy wings. Wordsworth, in his "Evening Walk," thus charmingly describes a family of these birds:

"On as he floats, the silver'd waters glow,
Proud of the varying arch and moveless form of snow,
While tender cares and mild domestic loves
With furtive watch pursue her as she moves,
The female with a meeker charm succeeds
And her brown little ones around her leads,
Nibbling the water-lilies as they pass,
Or playing wanton with the floating grass.
She, in a mother's care, her beauty's pride
Forgets, unwearied watching every side:
She calls them near, and with affection sweet
Alternately relieves their weary feet,
Alternately they mount her back, and rest,
Close by her mantling wings' embraces pressed."

We regret that we have hitherto missed the opportunity of sketching what would have made a subject for a pretty picture.

Swans do not breed until they are several years old, and they mate strictly in pairs: the technical terms for the male and female are cob and pen. The cob, or male, has a thicker neck and a larger "berry" at the base of the bill than the pen, or female; he also swims more buoyantly, from having more volume of lungs. Maturity in both cob and pen is shown by the size of the "berry" and the depth of the orange colour of the bill.

On the Thames the nests are sedulously watched by the fisherman, who receives half-a-crown for each young bird that is hatched. He also takes care of the birds during inclement winters, receiving two shillings a week for the time during which he has given them food and shelter. Taking eggs from the nests of swans, and of certain other birds, was an offence severely dealt with in old times. We find, in an Act* of Henry VII., that "no manner of person, of what condition or degree he bee, take or cause to be taken, be it upon his owne ground or any other mans, the egges of any fawcon, goshawk, laners, or swans, out of the nest, upon paine of imprisonment of a yere and a day, and fine at the kings wil, the one halfe thereof to the king,

and the other halfe unto the owner of the ground where the egges were so taken.” The ownership of these swans is referred to in our next chapter.

The swan feeds on aquatic weeds, the spawn of fish, and coarse grass growing by the sides of the water: it is furnished with a gizzard of extraordinary muscular power, which enables it to grind the weeds, however fibrous, to a pulp. Each family of swans on the river has its own district; and if the limits of that district are encroached upon by other swans, a pursuit immediately takes place, and the intruders are driven away.

All writers on the subject agree that the swan is very long lived, some saying that it attains thirty years, while others assert that it sometimes survives a century.

"Man comes and tills the earth and lies beneath,  
And after many a summer dies the swan."

The particular species that is the subject of the present article is often semi-domesticated on lakes and ornamental waters, and is known as the tame or mute swan—Cygnus olor of the ornithologists. It is said not to have been originally a native of our islands, but is found in the eastern portions of Europe and the adjacent parts of Asia, where inland seas, vast lakes, and extensive morasses afford it a congenial home. In Siberia and some parts of Russia it is common, and abounds on the shores of the Caspian Sea. It is doubtful when this graceful bird was introduced into this country.

The unrivalled beauty of the swan has naturally made it a favourite with the poets. We have Wordsworth’s oft-quoted but ever-delightful couplet—

"The swan on still Saint Mary’s lake  
Floats double, swan and shadow!"

And Milton’s stately lines:

"The swan, with arched neck  
Between her white wings mantling, proudly rows  
Her state with oary feet."

Keats, who seems to have had quite a painter’s appreciation of beauty, both of form and colour, writes as follows:

"Oft have you seen a swan superbly frowning,  
And with proud breast his own white shadow crowning."
And again—

"There saw the swan, his neck of arched snow,
And oar'd himself along with majesty:
Sparkled his jetty eyes; his feet did show
Beneath the waves like Afric's ebony."

The following characteristic passage is from the pen of that prose-poet, John Ruskin: "If the reader would obtain perfect ideas respecting loveliness of luminous surface, let him closely observe a swan with its wings expanded in full light five minutes before sunset."

Wild swans are sometimes, though very rarely, shot on the Thames; they may be often observed flying in a wedge-like form, high in air, but they very rarely settle. Those specimens that are occasionally seen in Leadenhall Market come, for the most part, from the east coast, and are of the kind known as the Hooper, or Whistling Swan. This species, *Cygnus ferus*, is neither so large nor so graceful as the tame swan.
CHAPTER XXVIII.

SWAN-HOPPING.

"A fat swan lov'd he best of any rost."

*Chaucer's Prologue.*

The following remarks, relative to the right of keeping swans, are taken from the "Penny Cyclopædia":—

"In England the swan is said to be a bird royal, in which no subject can have property, when at large in a public river or creek, except by grant from the Crown. In creating this privilege the Crown grants a swan-mark (*cygninota*) for a game of swans, called in law Latin *deductus* (a pastime, *un déduit*) *cygnorum*, sometimes *volatus cygnorum* (7 Coke's Rep. 17). In the reign of Queen Elizabeth upwards of nine hundred corporations and individuals had their distinct swan-marks. Mr. Yarrell's valuable work on British birds contains a mass of curious information on this subject, together with delineations of sixteen different swan-marks.

"The privilege of having a swan-mark, or game of swans, is a freehold of inheritance, and may be granted over. But by 22 Edw. IV., c. 6, no person other than the king's sons, shall have a swan-mark, or game of swans, unless he has freehold lands or tenements of the clear yearly value of five marks (£3 6s. 8d.), on pain of forfeiture of the swans; one moiety to the king, and the other to any qualified person who makes the seizure.

"The city of Oxford has a game of swans by prescription, though none
are now kept. In the sixteenth century (when a state dinner was not complete unless a swan was included in the bill of fare) this game of swans was rented upon an engagement to deliver yearly four fat swans, and to leave six old swans at the end of the term. By the corporation books it also appears that in 1557 barley was provided for the young birds at fourteen pence a bushel, and that tithes were then paid of swans.

"Two of the London Companies have games of swans, the Dyers' and the Vintners' Company, and are, with the Crown, the principal owners of swans in the Thames. In August, 1841, the Queen had 232, the Dyers 105, and the Vintners 100 swans in the river. Formerly the Vintners alone had 500. The swan-mark of the Dyers' Company is a notch, called a "nick," on one side of the beak. The swans of the Vintners' Company, being notched on each side of the beak, are jocularly called "swans with two necks," a term which has long been used as a sign by one of the large inns in London.

"On the first Monday in August in every year, the swan-marker of the Crown and the two companies of the city of London go up the river for the purpose of inspecting and taking an account of the swans belonging to their respective employers, and marking the young birds. In ancient documents this annual expedition is called swan-upping, and the persons employed are denominated swan-uppers. These designations have been popularly corrupted into swan-hopping and swan-hoppers."

Without prescription all white swans in an open river, unmarked, belong to the Crown by prerogative. Consequently should any brood, belonging to either of the City companies, be overlooked by the markers one year, it becomes thereafter royal property. This probably accounts for the fact of the number of birds belonging to the Queen exceeding that of the Dyers and Vintners put together.

A curious fine for stealing swans appears in Coke's "Reports," Part VII.; it is as follows:—

"He who stealeth a swan in an open and common River, lawfully marked, the same swan shall be hung in a house by the beak, and he who stole it shall, in recompense thereof, give to the owner so much wheat as may cover
all the swan by putting and turning the wheat upon the head of the swan, until the head of the swan be covered with wheat."

For its value as an article of food the swan is with us now almost entirely disregarded. Two or three are still fattened every Christmas time for Windsor Castle, where, in accordance with old usage, they make their regular appearance on the royal table. On only one occasion have we ourselves ever had the opportunity of testing the taste of our ancestors in the matter, and we are inclined to class the royal bird along with the royal fish, the sturgeon, as really inferior in flavour to many a plebeian dish. In colour the flesh is extremely dark, and, if we may speak from our solitary experience, we should describe it as somewhat dry, and decidedly coarse in fibre: the bird in question was a young one, which had been carefully fattened, and kept till tender after being killed.

The swan-hopping is taken advantage of by many members of the two companies, who, with a party of their friends, make it the occasion of a pleasant three days' excursion up the river. They either accompany or precede the actual markers of the swans, stopping for the night at Staines, Taplow, and Henley. At the present date they travel in a house-boat, towed by horses; formerly the old City barges (now moored at Oxford) were used, with their double banks of rowers. Daniel's "Rural Sports," published in 1801, speaks of the swans being abundant "quite up to the source of the River." During our time Henley has been the limit beyond which we have never seen any of these birds.

The fact that the swans feed freely on the spawn of fish, has rendered them objects of dislike to many anglers. Towards the close of last year, the Great Marlow Angling Association memorialised the Lord Chamberlain for a "redistribution" of her Majesty's swans on the river, giving as a special reason the attempt now being made to re-stock the river with trout. From Lord Sydney's reply, we gather that in the district of seven miles, alleged to be overcrowded, there were counted forty-nine swans. Thirty of these probably belonged to the Queen, the remainder being the property of the City companies. His lordship did not consider this too large a number for
the length of water, and declined to give orders for any reduction in their numbers.

Our sketch shows the manner of catching and collecting the birds, when the creatures' legs are tied together over their backs. The way in which the swans are handled seems, to a looker-on, somewhat barbarous. The “nicking” of the beaks is done with a pen-knife, which causes the blood to flow slightly, and the cygnets have their immature wings clipped, and the blood staunched with tar. Removing the last joint of the wing is termed “pinioning.”

A large part of this and the preceding chapter is taken from Charles Knight’s “Museum of Animated Nature,”—a work from which we have confidence in quoting, Mr. Gould having told us that it is generally correct as regards the natural history of our birds.
CHAPTER XXIX.

SHOOTING AN OTTER.

"... Lord of the stream, and all
The finny shoals his own:—and on that bank
Behold the glittering spoils! half-eaten fish,
Scales, fins, and bones."

Somerville.

Without at all disputing the fact that a good many fish fall victims to the voracity of each otter which is suffered to survive, we cannot help putting in a mild plea on behalf of the species. There are now so very few of the tribe left near the river, their enemies have had such constant success, that from the victors we would now petition for a cessation of hostilities. The difference which the few remaining otters make to the total quantity of fish in the river must be but a minute fraction, surely not enough to justify the complete extermination of "so interesting a native." Only once have we had the luck to view one of these graceful creatures in the Thames; and we do not think that more than two or three are ever seen in one year. The fact of the presence of an otter being detected anywhere seems to call for immediate notice in the Field, usually accompanied with talk of rewards for its destruction. The animal is generally alluded to in more vituperative language than would have been thought to exist in the vocabulary of the "gentle" angler; and should the death of the poor beast be compassed,
the glory supposed to attach to the exploit is ludicrously out of proportion to the occasion. In our district the skin of an otter is said to be worth fifteen shillings or a pound.

The following particulars regarding the otter are to be found in the "Museum of Animated Nature:"—

"This well-known species is by no means confined to the lakes and rivers of Europe, but abounds also on many parts of the coast, being common on the shores of Scotland and Ireland. It is during the night that the otter carries on its work of slaughter; sly and recluse, it lurks by day in its deep burrow, the mouth of which is concealed among masses of stone, the luxuriant herbage of some steep bank which overhangs the water, or beneath the twisted roots of an overshadowing tree.

"The movements of the otter are remarkably graceful, and it swims at every depth at great velocity; every now and then it comes for a moment to the surface to breathe, previously expelling the air pent up in its lungs, which, rising in bubbles, marks its sub-aquatic course. Having taken breath afresh, it dives noiselessly, like a shot, and gives chase to its prey, which it follows through every turn and maze, till at length the exhausted victim can no longer evade the jaws of its rapacious foe. Whoever has witnessed the feeding of those which from time to time have been kept in the gardens of the Zoological Society, cannot fail to have remarked the fine sweep of the body as the animal plunges into the water, its undulating movements while exploring its prey, the swiftness and pertinacity of the pursuit, and then the easy turn to the surface with the captured booty. This is generally devoured before the chase of another fish is commenced; sometimes, however, instead of treating them thus separately, the otter contrives to bring up several at a time, managing not only to seize them, but to carry them hanging from its mouth. In eating them it commences with the head, which it crushes in an instant between its teeth. Eight or ten moderate-sized fish serve for a single meal; but it is well known that in a state of nature the otter slaughters a much larger number of fish than it devours; hence some idea may be formed of the havoc occasioned by a pair of otters in support of themselves and their young. Indeed
the animal seldom devours more of a fish than the head and upper portion of the body. When fish is scarce, the otter will feed on frogs and water-rats. It has even been known to resort far inland, to the neighbourhood of the farm-yard, and attack lambs, sucking-pigs, and poultry, thus assuming for a time the habits of its more terrestrial congener. In winter, when the rivulets and ponds are frozen, the otter wanders in search of such places in the river as are by their depth secured against the effects of the frost, or travels down the smaller streams to the large river, and there continues its work of destruction.

"Otter hunting was among the favourite field-sports of our ancestors, and is still eagerly carried on in the islands of Scotland,* where the difficulties of the chase, from the rocky, broken nature of the shore, add to the excitement.

"The common European otter measures about two feet two inches in the length of the head and body, the tail being one foot four inches. Its usual weight is from twenty to twenty-four pounds, but instances have been known in which it has attained the weight of forty pounds. Those that frequent the sea-coast are generally larger and darker coloured than the otters of inland rivers or sheets of waters. The female produces from three to five young, and is devoted to them, nursing them with the greatest assiduity.

"The otter is intelligent, and when taken young easily tamed, and may be taught to assist the fisherman, by driving shoals to the nets, or by catching salmon. Daniel, Bewick, Shaw, and Goldsmith record instances in which the otter has been domesticated, as do also Mr. Bell and Mr. Macgillivray. The late Bishop Heber noticed in India, on one occasion, a number of otters tethered by long strings to bamboo stakes at the water's edge, and was informed that it was customary to keep them tame, in consequence of their utility in driving the shoals of fish into the nets, as well as bringing out the larger fish with their teeth."

Some curious particulars respecting the otter are to be found in the "Complete Sportsman, or Country Gentleman's Recreation," by Thomas Fairfax, Esq.† The following sentence is a specimen of that gentleman's style: "He

* At Carlisle, and at three or four other places in England, packs of otter-hounds are still kept up.
† Not dated.
is a very subtil and crafty beast, and endowed with a wonderful sagacity and sense of smelling, insomuch that he can directly wind the fishes in the water a mile or two distance from him.”

Mr. Jesse, in his “Gleanings from Natural History,” narrates an incident in evidence of the devoted affection that the otter bears to its young. In the case of some young otters being taken alive and put into a sack on board a boat, the old otters persistently followed the captors ten miles up the river (the Indus); and whenever their progeny uttered a wailing noise, they not only approached the boat, but even attempted to get into it, with utter disregard of the danger to themselves.
PUTTING DOWN GRIG-HEELS.
CHAPTER XXX.

PUTTING DOWN GRIG-WHEELS.

". . . . As one would look
Athwart the sallows of a river nook
To catch a glance at silver-throated eels."

Keats.

GRIG-WHEELS* are wicker baskets sunk in the river for the purpose of catching eels. They contain a chamber into which there is an entrance narrowing inwards nearly to a point, and formed at the end of converging willow rods. These rods diverge easily upon pressure, and so admit the long, thin body of the eel into the chamber, when they close again and prevent his return. The old-fashioned wire mouse-trap is precisely similar as regards the principle of construction, so that allusion to it will render further description unnecessary. These traps are intended only to be used for the catching of eels, but other fish may be taken in them. Stones attached near each end of the weel are used for the purpose of sinking them.

Grig-weels are commonly laid with the openings down the stream, as it is in their progress up the river that the smaller eels are generally taken. About eighteen of these baskets comprise the set that the fisherman employs.

* "Grig or ground-weels" are the terms used in the Bye-laws of the Thames Conservancy Acts. Any small eel is called a grig on the Thames; a Saxon origin is ascribed to the word "weel" or "weely," by Dr. Johnson, who defines it as "a twiggen snare or trap for fish (perhaps from willow).—Carew."
at one time. He usually lays them about sunset, and collects them again early in the morning. He tries all the likely-looking spots, varying the locality very much on different nights, according to his fancy. It is a rather severe tax upon the memory to recollect every place at which he has lowered a weel; and sometimes he will break a small willow bough opposite the spot, or tie a knot in a rush, or use some other simple means to the same end. The weels are raised from the bed of the river by means of a hitcher or boat-hook, which is groped about till it catches between the twigs of which the basket is composed. There is a wooden stopper at the upper or small end of the weel, which is taken out, that the fish may be shaken into the well of the punt.

For bait a few gudgeon are used, or the refuse of larger fish, enclosed in the inner chamber; but when the fish are "moving," they are frequently taken without the trap being baited at all.

This "moving" of fish is altogether a very uncertain affair, and seems to be beyond man's calculation. Little is known except the facts that when there is much electricity in the air, eels are exceedingly active; and that, as with other fish, very light nights are not favourable to their capture. That most of the weels will contain fish, or that none will, and that on the same night all the fishermen will be successful or none, is the case; but the reasons for this are purely conjectural.

Our next chapter will be devoted to the large eel-bucks or stages, when we shall add what further particulars we have been able to gather with reference to the eels in the Thames.

The time of the day we have endeavoured to suggest in our illustration is about half an hour after sunset, as the fisherman nears the end of his task. Others, besides ourselves, will doubtless have noticed the absolute stillness that so often reigns at that hour, however boisterous the day may have been. Every object is perfectly reflected from the surface of the water; and, owing to the position in which one object often is as regards others, it not unfrequently happens that the inverted shadow is seen more distinctly than the substance to which it owes its existence. We have often watched this effect, and after a blustering day in September it is peculiarly fascinating, as the
light fades and the gusts of wind die away, to note the gradual change into such a quiet as seems almost unreal. In “My Study Windows” Professor Lowell speaks of “that delicious sense of disenthralment from the actual which the deepening twilight brings with it, giving, as it does, a sort of obscure novelty to things familiar.”

“The eel’s foe, the heroïn,” as Chaucer calls it, is the subject of our vignette. Lord Bacon says that this bird, “when she soareth high, so as sometimes she is seen to pass over a cloud, sheweth winds.”
CHAPTER XXXI.

EEL-BUCKS.

"They are nought but eels, that never will appeare
Till that tempestuous winds or thunder teare
Their slimy beds."

MARSTON’S SATIRES (1764).

EEL-BUCKS are sometimes called pots, the word used for the wicker-baskets for catching lobsters. The retaining of the word “buck,” applied to a large basket, is one of the many instances in which an old English word is preserved in out-of-the-way places. To all of our readers it will, no doubt, suggest the famous scene in The Merry Wives of Windsor, where Sir John endures the ignominy of stewing with the unwashed linen in the buck*-basket, and being thrown out, “hissing hot,” into the Thames, and “cooled, glowing hot, in that surge, like a horseshoe.”

These traps for eels are of the same materials, and are very similar in construction to the grig-weels described in the preceding chapter; the chief difference is their size (they measure about nine feet six inches or ten feet), and the addition of a small chamber at the side, near the lower end. Into this chamber the eels always retire, to avoid the rush of water, which, driving them against the twigs, is liable to injure them. Instead of a wooden stopper, a wicker one is used, held by a pin that goes right through the narrow rim of the basket.

* "Buck, the liquor in which clothes are washed."—ASH’S DICTIONARY.
LOWERING EEL BUCKS.
A stage of eel-bucks usually consists of six or seven, and is commonly placed between an island and the river-bank, of course on that side of the island that is not used for navigation. The spot selected for erecting these traps is where the current is strong, and they may be regarded as “rough filters, which permit the water to run through but retain the fish.” This definition, which is the most easily intelligible of any I have met with, occurs in Mr. Smee’s very useful book, “My Garden.” Separate traps on the same principle are frequently placed where the surplus water of a mill runs off, or in any similar position.

The stages are only in use on the Thames for a few months in the year, from about October to December. It is to intercept the larger eels in their migration to the mouth of the river that they are employed. The use of the small grig-weels is the reverse of this—the open or large end is placed down the stream, in order to catch the eels in their passage upwards from the mouth of the river. It is supposed that they breed in the brackish water, though very little is known on the subject. The fact that eels abound and thrive in many ponds which have no outlet to any running stream, shows that these migrations are not indispensable conditions of their existence.

The passage of the small fry up the river is called the eel-fare, and is thus described by Mr. Jesse, in his second series of “Gleanings in Natural History”:—“These young eels are about two inches in length, and they make their approach in one regular and undeviating column of about five inches in breadth, and as thick together as it is possible for them to be. As the procession generally lasts two or three days, and as they appear to move at the rate of nearly two miles and a half an hour, some idea may be formed of their enormous number. The line of march is almost universally confined to one bank of the river, and not on both sides at the same time; but, from some instinctive or capricious impulse, they will cross the river and change the side without any apparent reason for doing so. When the column arrives at the entrance of a tributary stream which empties itself into the river, a certain portion of the column will continue to progress up the tributary stream, and the main phalanx either cross the river to the opposite bank, or will,
after a stiff struggle to oppose the force of the tributary branch in its emptying process, cross the mouth of this estuary, and regain its original line of march on the same side of the river.”

The manner of raising or lowering these bucks is the same as that of the paddles in the weir with fixed bridge; and a comparison of the two illustrations will perhaps render them both more intelligible. We have seen one other instance of the same use of an axle worked with movable levers, and that is the raising of the “trunks” in which the fisherman keeps the fish he has caught, and may have in stock. When the river is very full, and a powerful stream running, it takes some trouble to lower these baskets. In a usual way, their own weight is sufficient to do it, but at times it taxes to the uttermost the strength of a couple of men pressing them down with poles. A movable post or “rimer” helps to form the groove in which they slide, and is held by a pin called a “jack.” These rimers fit into staples at the lower end; sometimes they are reversible, and reference to the illustration will show that the two nearest to the fisherman are so. This construction is to allow removal of the basket for repairs, &c. Although actually only in use for a few months of the year, the trouble attending their removal is so great that they are usually left in their places exposed to the weather, but not immersed in the river. The constant rush of water about these stages necessitates originally a very solid construction. This is further strengthened by nailing pieces of wood about it at odd places, thus enhancing the picturesque appearance of these objects, which have always been favourites with the sketchers on our river. The colours of the osier-rods, of which the baskets are made, vary from olive green to brownish purple, and naturally look well among the bright greens that surround them. We are sorry to say that in some places galvanised iron is being employed as a substitute for the picturesque osier-rods in eel-baskets. It seems that ours is rightly named the iron age—iron has entered into the soul of it.

So little is actually known as to the natural history of the eel, that there has in consequence been a great deal of controversy on the subject. In 1871 there was an interesting case brought before the Windsor magistrates, when
a fisherman endeavoured to maintain the right of catching eels all the year round, in defiance of the fence season, laid down by the Thames conservators. The fisherman was convicted, but the justices found as fact that there was no sufficient evidence how eels are propagated, nor when they spawn, nor whether they are at any time unfit for food. An appeal was made to the Court of Common Pleas,* and the magistrates' decision confirmed. However, the subject seems since to have received much attention, and in April of this year the Thames Conservancy issued an official notice in reference to the bye-laws regarding the taking of eels. After stating the intention to assimilate the close season of the upper water with the lower district, it goes on to say, “Eels may be taken in the fence months, as well as all other times of the year; but no person shall, between the first day of March and thirty-first of May inclusive, take, or attempt to take, eels otherwise than in eel-weels, bucks, or baskets; and any fish that may be caught in such eel-weels, bucks, or baskets, other than eels, shall forthwith be returned uninjured, as far as can be, to the river by the person catching the same.”

The bucks are usually lowered in the afternoon; and it is the prevailing opinion among the fishermen that the eels are for the most part taken between nine o'clock and midnight. In their opinion the effect of thunder upon eels is rather occasioned by the sudden thickening of the water than any occult atmospheric influence; and they allege in support of their view, that while the eels will move during a thunderstorm in the smaller streams, they do not move in the river itself till the day afterwards, when the river has in turn become muddy. We are afraid that this reason is far too simple and prosaic to find favour, though we should much like to hear what can be brought forward to refute it. The belief that thunder “awakes the beds of eels” is countenanced by Shakspere; any facts brought together on the subject would be extremely interesting.

Half a hundredweight of eels in a single night is reckoned a good take for the whole set of six or seven baskets. They had for a long time been sold at an average price of a shilling the pound, but have risen in price lately,

* Woodhouse v. Etheridge. See Law Times, July 8th, 1871.
owing, no doubt, to the depreciation of money, so painfully observable by persons dependent on fixed incomes.

As eels are the principal means of support of the professional fishermen, many methods have been devised to secure them. We may mention spearing for them with a trident, bobbing for them with bunches of large worms threaded on red worsted, and fishing with night-lines. Spearing for eels is not in use on this part of the river, at least as far as we are aware; bobbing also is only carried on in the lower waters, but night-lines baited with worms are frequently met with.
FLIGHT SHOOTING.
CHAPTER XXXII.

FLIGHT-SHOOTING.

"Beneath this hedge
Screen we ourselves and dogs—close o'er our head
The birds will skim; they come, compact and close,
When instant 'mid their ranks the whistling shot
Spreads dire destruction."

_Fowling_, by J. Vincent.

The term "flight-shooting"* signifies shooting wild-fowl at evening twilight, as they fly overland from the sea, or from rivers or lakes which they use by day, to marshes, moors, or fens, where they feed by night; and, again, the sport may be resumed at morning twilight, as the birds return from their feeding haunts to their places of daily resort.

The flight-shooter waits in ambush in the track of the flight usually taken by the wild-fowl as they fly to and fro morning and night, or he may conceal himself in a boat or up a creek—indeed, anywhere in their track. From some such place of concealment the flight-shooter keeps a sharp look-out about the space of an hour and a half, or so long as twilight lasts. Wild-fowl move very rapidly through the air at flight-time, but generally low enough to be brought down by a dexterous sportsman, even with a short gun. The tyro will be sorely puzzled at first, as trip after trip passes over

* The practical part of our remarks under this heading is taken almost literally from the "Wild Fowler," by H. C. Folkard, 1859, which is by far the best work on the subject we have met with.
his head in rapid succession. No shooting is more difficult than this, and none requires a keener eye or greater dexterity. The sportsman should remember to allow the birds to pass over his head before firing, and then send his shot after them, under their feathers; and he must fire well forward, at least a foot in front of them, so as to make allowance for the rapidity of their flight.

There is now a great deal of uncertainty attending this sport in any but severe winters; but before the destruction of the breeding-haunts of wild-fowl by the drainage of moors and fens, it was a very popular diversion, and a steady source of food-supply in many districts.

Whenever the flight-shooter is fortunate enough to meet with a shot at a good number of birds, he may bring down his four or five at a charge with a small gun, if he fire at the critical moment, which is (and it cannot be too much insisted on) the instant after they have passed over his head.

The most propitious night that can be chosen for this sport is at the first and last quarters of the moon, or at the half-moon, and during a strong wind, as the birds then fly very low. A cloudy sky, or rather a sky which presents a mixture of dark and white clouds, with only a little moonlight, is also highly favourable; neither bright moonlight nor clear starlight evenings are adapted for flight-shooting. When the course of the birds is westward, and a lurid sky lights up the scene, the fowler has an excellent chance of seeing his birds clearly when he fires. They generally fly in small trips to their feeding-haunts at night, but return in the morning in larger flights. They fly very low as they proceed over water and mud, but rise higher in the air on reaching dry land.

In windy weather they keep more together, and go in larger flights; but very swiftly, if their course be down wind. The sportsman must then be doubly quick in taking his shots, or the birds will have passed by him before he can bring the gun to his shoulder. If, on the other hand, the course of the birds be against a strong wind, their flight will be so steady that the sportsman will have abundant time to aim deliberately before firing. When the moon rises before twilight, the flight-shooter’s sport is often considerably
prolonged, as many of the fowl frequently make their flight an hour or two later on such occasions, more especially ducks that have been constantly shot at on their flight; these birds sometimes defer their departure to the feeding-marshes until long after their customary hour, during moonlight.

Wild-fowl generally fly much lower in the morning than in the evening, sometimes only just topping the hedges, and they appear less wary of danger; probably this may be accounted for by their crops being at that time full and their appetites appeased.

Captain Lacy* tells us that in some places this particular branch of sport is carried on from boxes or tubs sunk into the ground on open plains, often in the very heart of the best feeding grounds. From these positions the flight-shooter fires at the birds both on the wing and as soon as they alight, whichever appears to present the better chance. So fascinating do some men find this occupation, and so indefatigably do they pursue it, that they are known sometimes to remain throughout the whole night in these sunk boxes, utterly regardless of any evil result.

The common wild duck† is the largest of this species that falls to the gun of the fowler. The general name duck is taken from the female, the male being the mallard, or drake, and the young birds flappers. The last have earned their name by their ungainly attempts to fly before their wing feathers are sufficiently grown, which does not take place till they are eight or ten weeks old. It was formerly the practice in many places to hunt the flappers down, when they became an easy prey; but we are happy to say that the Wild Bird Protection Act now prevents this shortsighted and barbarous sport. The length of a full-grown mallard is nearly two feet, the stretch of the wings three feet, and the weight about two pounds and a half. The head and neck are of a fine dark glossy green colour, a white collar encircles the throat, and below it the neck, breast, and shoulders are of a purplish brown. The wing-spot is rich purple, with reflections of blue and green.

There are about twenty-eight species of ducks, which are seen more or less frequently in different parts of the country, and principally during the

† *Anas boschas.*
winter season. The time of departure of wild ducks from the north is about the middle of October, and continues during a part of the following month. It is by no means unusual, in the early part of the winter, to find large paddlings of mallards unaccompanied by ducks. It would seem to be very un gallant on the part of the male birds to leave their companions behind them on the voyage of migration, but so it is; the mallards leave the north earlier than the ducks, which generally remain with their young until the severity of the frost compels them to proceed to a more southern climate. They fly usually in the form of a slanting line as if broken in the centre; not unfrequently the group presents the appearance of the letter V perfectly formed. They sometimes fly in a confused mass near low wet ground.
CHAPTER XXXIII.

FISHERMAN'S FIRESIDE.

"To watch the night in storms, the day in cold,
While thou liest warm at home, secure and safe;
And craves no other tribute at thy hands,
But love, fair looks, and true obedience."

SHAKSPEARE.

The interior that we have sketched is one of the few still remaining near the river, with the roomy chimney-corner, massive beams, and stoutly built walls, that really defy the winter's cold, however severe it may be. And it is severe in the flat, marshy districts of the Upper Thames; the long continuance of flood, which often imprisons the inmates for months together, renders the comfort of the fireside a consideration of unusual importance. The only one of the household who, during these periods, stirs out at all, is the master himself, with his great boots that reach half way up his thighs. He can thus disregard the foot or two of water that covers the meadows near his home. While he is perhaps looking after the wild-fowl, at this season comparatively abundant, his wife or daughter will be busy making the nets with which, when the waters subside, the fishing will be recommenced.

The details in the room that may be noticed as specially characteristic of the locality are the stuffed otter over the cupboard door, the birds in cases, and the pike's head suspended by a string. It is perhaps as well that we
have told our readers that the quadruped alluded to is an otter, for it has been stuffed with very little reference to nature, its body showing about as much form as a sausage. Of the two birds in our drawing, the larger one is the goosander, and the smaller one the tern, called hereabouts the sea-swallow. Both are sufficiently rare in these parts to make the owner proud of having shot them; and if willing to part with them, he is sure to be offered a good price by some young gentleman in the neighbourhood anxious to secure them as specimens for his collection of the wild birds. The reed-mace or cat-tail (incorrectly called the bulrush) figures prominently in one of the old ginger-jars that adorn the mantelpiece, and is, in its way, also suggestive of the water-side.

The old-fashioned dog-irons still retain their place on the hearth, though it has been found necessary to supplement them with a few bricks, to make them suit the requirements of a modern coal fire.

With reference to cutting and drying herbs, some of which may generally be seen suspended from the beams in the fisherman’s cottage, we think the following directions worth quoting:—

“All herbs should be cut and dried before the middle or end of September, not so much for the sake of the herbs to be dried as for the roots left in the ground. There are many kinds of herbs, such as mint, sage, thyme, &c., which perish during winter if they are not cut in time to allow of the plants making a short growth before the growing season comes to an end. Sage and thyme invariably perish if cut at indiscriminately, so as to have the wood bare after September. Herbs must not be dried on the haymaking principle—i.e., not to dry the ‘natur’ out of them, as I have known a northern amateur do, who dried his herbs before a kitchen fire! His principal reason for adopting such an expeditious plan was that they rubbed down conveniently, and could be bottled easily. Those who buy bottled parsley and such like should smell it first. The best way to dry is to spread the herbs out in a dry, airy room or loft, turning them over frequently to prevent the leaves getting mouldy. In damp, dull weather a dry vinery or peach house is a good place, hanging the bundles over the wires.

“The object in all cases should be to dry them gradually, and the leaves
should retain their colour to a considerable extent, and adhere firmly to the branch. When they crumple up in the hand, they have been subjected too much to the kitchen-fire process, which destroys their virtue.

"After all have been thoroughly dried, they should be tied in small bunches suitable for using, and hung in a dry shed."

It is said that the best state in which to gather herbs is when they first come into flower, as at that stage their peculiar flavours have culminated.
CHAPTER XXXIV.

APPROACHING THE FOWL WITH STALKING-HORSE.

"Stalk on, stalk on, the fowl sits."

Shakspere.

UNDER the title of "wild-fowl" are classed the various species of wild swans, geese, and ducks, which, though often found at sea, evince a partiality for fresh water, and habitually rear their young in its neighbourhood. For this definition, and for much of the information in these chapters, we are indebted to Mr. Harting's "Ornithology of Shakspere," to which we have great pleasure in referring our readers. The book is an admirable one, interesting alike to the naturalist and to the student of Shakspere—himself a sportsman, and a close observer of the animal world.

That in the inland parts of the country wild-fowl have been much more abundant than they are at present, we have much evidence from various sources. The numerous allusions to the subject by mediæval writers are the best testimony on the point. Chaucer speaks of "ryding on hawking for rivére," or even simply "ryding from river," which a note by D. Laing Purves* explains thus,—"Where he had been hawking after water-fowl." Froissart says that any one engaged in this sport, "alloit en rivière." The falcon, or smaller goshawk, was specially trained to the chase of the river-fowl, as may be gathered from the couplet in Chaucer's Troilus and Cressida:—

* Nimmo's edition.
Approaching the Fowl with Stalking-Horse.

"Each for his virtue holden is full deare,
Both heroner and falconer for rivière."

Spenser* speaks of a falcon "flown at a flush of ducks foreby the brook," and Shakspere† of the same bird "flying at a brook," which terms are synonymous with hawking for water-fowl. There can be little doubt that the decay of the pastime of hawking is to be greatly attributed to the decrease of our wild-fowl; a fact owing to the gradual draining of marshes and embanking of rivers, as by this means the extent of flooded land in the winter is materially limited. The increase of population, and consequent enclosure of much waste land, have also contributed not a little to the same result. Pennant records that at a single driving of the fens in Lincolnshire, before the young had taken wing, and while the old birds were in moult, one hundred and fifty dozens have been captured. The same district, at the present time, scarcely produces a dozen broods in the year.

The frequent mention that is made by old writers of the device of the stalking-horse for the approach to wild-fowl, shows how much more abundant than at present the ducks, &c., must have been. In As You Like It, the Duke says of Touchstone, "He uses his folly like a stalking-horse, and under presentation of that he shoots his wit." The line "Stalk on, stalk on, the fowl sits," occurs in Much Ado About Nothing. The following sentence is from a sermon by Bishop Hall:‡—"Here one, if he can have no other ground, will make religion a stalking-horse to his covetous and ambitious intentions; it is bellum Domini, 'a sacred war;' that he wages for the reducing of heretics to the unity of the Church, or punishing their perfidiousness."

Though at the present day not likely to be referred to by a contemporary writer as an object with which most would be acquainted, it would seem to be better known to our American cousins. In the "Essay on Pope," by the author of the "Biglow Papers," occurs this passage:—"Milton was willing to peril the success of his crowning work by making the poetry of it a stalking-horse for his theological convictions."

* "Faerie Queene," Bk. V., Canto ii., last stanza. † King Henry VI., Part II., Act II., Sc. i.
‡ Died 1656.
Mr. Harting gives a quaint description of this ancient device from the "Gentleman's Recreation," by Gervase Markham.* It is as follows:—"Some-time it so happeneth that the fowl are so shie there is no getting a shoot at them without a 'stalking-horse,' which must be some old jade trained up for that purpose, who will gently, and as you will have him, walk up and down in the water which way you please, plodding and eating on the grass that grows therein. You must shelter yourself and gun behind his fore-shoulder, bending your body down low by his side, and keeping his body still full between you and the fowl. Being within shot, take your level from before the fore part of the horse, shooting, as it were, between the horse's neck and the water. . . . Now, to supply the want of a stalking-horse, which will take up a great deal of time to instruct and make fit for this exercise, you may make use of any piece of old canvas, which you must shape into the form of an horse, with the head bending downwards, as if he grazed. You may stuff it with any light matter; and do not forget to paint it of the color of an horse, of which the brown is the best. . . . It must be made so portable that you may bear it with ease in one hand, moving it so as it may seem to graze as you go."

In the "Privy Purse Expenses of King Henry VIII." are various entries referring to stalking-horses, all of which appear to refer to the live animal; and there is one entry relating to the stalking-ox. In Lacroix's excellent work† occurs a representation of a stalking-horse of the date of the fifteenth century. It is a fac-simile of one of the curious miniatures in the illuminated manuscript of Gaston Phebus III., Count de Foix, and bears the title, "Comment on peut porter la toile pour trahir aux bestes." We gather from M. Lacroix's remarks on the illustration, that the same device is in use at the present day in France, with the sole exception that the form of a cow is now preferred to that of a horse.

Like all contemporary authors, Gaston Phebus carefully directs attention to the moral side of "la chasse." "In hunting," says he, "one avoids the sin

* 1595.
† "Moeurs, usages, et costumes au Moyen Age et à l'époque de la Renaissance." Paris, 1871.
of laziness, for he who flees the seven mortal sins, according to our faith, should be saved; then the good hunter will be saved.” An amusing, if not strictly logical statement of the case.

That the stalking-horse was anciently employed in partridge-shooting we have the testimony of Willughby’s* “Ornithology” (1678), referred to in Douce’s “Illustrations of Shakspere.” Idstone alludes to its use in the pursuit of woodcock, and quotes a Mr. Dobson, who writes that they also used a small kind of mongrel setters, bastardised through a dozen crosses, and broken by means of starvation and hard blows. As soon as the dog was set, the operator unslung his stalking-horse from his shoulder, and immediately commenced walking quickly round the dog, contracting his rounds every time. He thus describes the cock sitting terrified at the phenomenon of the stalking-horse whirling ever around him: “He sits squatted like a toad, with eyes prepared to take the horizon in.”

The specimens we have been fortunate enough to meet with on our own river have been very few, indeed only three altogether. Of these, one had completely fallen into decay (its head had disappeared), and its owner seemed careless as to whether he ever rendered it efficient again or not. He complained that there were “a dozen men worriting about with a gun for one as used to be,” and that there was not much to be done any way. The second that we saw was placed against a hedge far from any human dwelling, and had a very melancholy air about it, that strongly suggested “occupation gone.” It was, however, in tolerable repair, and the proprietor may have intended to look it up before the winter, feeling confident that it would not walk itself off, and that no one would think of stealing it. The third was that from which we have drawn our illustrations, and is in regular use at the present time, probably the only one in the kingdom. Mr. Harting speaks of the device in the past tense, and it will perhaps be interesting news to him that it is not yet quite extinct. The three specimens alluded to have been essentially the same in construction, though differing somewhat in detail. A slight wooden

* We have consulted the only copy of this work in the British Museum, but failed to verify Mr. Douce’s reference.
frame (not unlike a hurdle), with canvas tightly stretched over it, forms the body; a head, bent down as if grazing, is rudely carved out of a flat piece of wood; tufts of horsehair are added for mane and tail; and with two straight pieces of wood for legs, the animal is, as far as appearance goes, complete. We were assured by the maker of one (who ought to have known) that it was "the very image of a horse." He told us that by adding horns it became "the very image of a cow." As both he and the wild-fowl, who are the chief parties concerned, seem satisfied with the resemblance, of course we could not presume to criticize. Being always presented broadside to the sight of the ducks, one fore and one hind leg are found to be sufficient. A swinging prop is added which is used in carrying the stalking-horse, and enables it to stand by itself when necessary. A hole in the shoulder serves for a look-out, and afterwards for resting the barrel of the gun, which is protruded a few inches. Sometimes a second hole is added at the animal's quarters, which permits two sportsmen to work together, and in that case they fire simultaneously.

The sense of smell and hearing is possessed by most wild-fowl in an extraordinary degree, and, except under favourable circumstances—favourable, that is, to the shooter—they display what Falstaff would call "a want of valour," and as soon as they become aware of the approach of the enemy, ignominiously take to flight: to quote Falstaff again, "There is no more valour in that Poins than in a wild duck." The utmost caution is consequently required; the method usually practised being that of walking towards the fowl in a gradually narrowing circle. It is a very difficult and tedious affair, particularly if there should happen to be any wind blowing at the time. Any sudden motion of the horse is sure to attract the attention of the ducks, and cause them to take flight precipitately, so that the difficulty of manœuvring such a mainsail of canvas must be great indeed. Early morning is the time of the day usually chosen for stalking, as there is then less probability of interruption. One cannot conceive a much greater trial of patience than happens when, after some hours spent in warily approaching the birds, a chance wayfarer accidentally frightens them away. In the "Noctes Ambrosianæ," the Shepherd is made to speak eloquently of a mortifying experience of this sort—"It's a trial that Job would
never have come through, without swearin'—after wadin' half the day through marsh and fen, sometimes up to the houghs (hips) and sometimes to the oxters (arm-pits), to see a dizzen or a score o' wild dyucks a' risin thegither, about a quarter of a mile aff, wi' their outstretched bills and droopin' doups, maist unmercifully ill-made, as ane might mistake it, for fleeing, and then making a circle half a mile ayont the reach o' slug, gradually fa'in intil a mathematical figure in Euclid's Elements, and vanishin', wi' the speed o' aigles, in the weather-gleam (horizon), as if they were aff for ever to Norway or to the North Pole.
CHAPTER XXXV.

SHOOTING WITH STALKING-HORSE.

"With fiery burst
The unexpected death invades the flock;
Tumbling they lie, and beat the flashing pool,
Whilst those remoter from the fatal range
Of the swift shot, mount upon vig'rous wing,
And wake the sleeping echoes as they fly."

"Fowling," by J. Vincent.

WHEN the sportsman has approached to within what he considers a fair range of the fowl, the stalking-horse is planted as firmly as possible in the ground, that it may serve as a steady rest for the gun. Mr. Harting speaks of the legs being spiked at the end for that purpose, but those we have seen were not so. A firm stand was secured by means of the swinging prop, which may be observed in a preceding illustration, held in the man's hand, and materially assisting him in carrying the animal. Two guns are frequently carried, a large duck-gun, and one "for the cripples," that is, to give the coup de grâce to any that may have been wounded and unable to get clean away. The larger gun that we have drawn measures in all seven feet and a half; it carries a hundred yards, which is considered a very long shot indeed. When the ducks are fairly within range, and are well grouped, so as to bring a sufficient number in the line of the gun, it is usual to make a low whistling or squealing noise, which causes all to stop feeding and to look up. Then is the instant to fire, taking care to
aim well above their heads, as they see the flash before the shot reaches them, and immediately take to the wing. Nineteen ducks at one shot, and thirty-two widgeon and teal at another, are the highest numbers that to our knowledge have ever been obtained. The man from whom we have made these sketches preferred to shoot without his cap, and we have accordingly so represented him; his reason being that he believed hair frightened the fowl less than any cap would have done. On our remarking that he must find it bitterly cold sometimes, he said we were not far wrong; and he accounted for the fact of his being somewhat prematurely grey by “the frostes getting at his hair.”
CHAPTER XXXVI.

BOAT-BUILDING.

"The form of the body in the water-birds is boat-like."

*Museum of Animated Nature.*

A WELL-BUILT boat when in the water seems of itself to suggest life with spontaneous movement: the reason, no doubt, being that the beautifully curved lines which enclose its shape have been more or less adapted from forms that Nature has bestowed on living animals. A boat, too, seems to have the separate individuality of a living thing, as all those who have had much to do with ships or boats of any kind will readily allow. Two boats constructed as far as possible on the same model will be found to vary in their "going" more than would be believed possible by the inexperienced: one, probably, being much more difficult to turn than the other, when it has once taken a direction, and in a variety of ways showing what seems almost wilfulness. This seeming inconsistency is probably owing to the extreme subtlety of the ever-changing curves in the form, which, however carefully they may be planned and measured, must at last depend actually upon the eye of the builder, and are consequently subject to infinite variations, in common with all true human work.

We will describe, as briefly as possible, the different forms of boat most in use on the Upper Thames.

In the first place, it will be as well to explain, for the benefit of those who
BOAT-BUILDING.
BOAT-BUILDING.

may be more used to the sea than the river, that a punt is not the small and dangerously light craft they know under that name, but the large, flat-bottomed, and steady affair represented in our sketches of "Rush-cutting," "Otter-shooting," "Boys bathing," &c. It is propelled by a pole "shoved" against the ground, and is no easy thing to manage in a strong current. The short, tubby boat generally known as a dinghy (or dingey), corresponds pretty much to what at the seaside is called a yacht's punt. The same term, dinghy, is also applied to a short skiff sixteen or seventeen feet in length.

The most ordinary forms of rowing-boats are the pair-oared gig and skiff. A gig is represented in our drawings entitled "Water-lilies" and "Carrying Over at a Weir," while reference to the "Swan-hopping" subject will show the form of the skiff. The most easily noted difference in their shape is that a skiff is curved between the rowlocks, which a gig is not; and it may be noticed that the part of the keel which terminates at the prow is not nearly so perpendicular in the skiff as is the case in the gig.

A boat for one person is (canoes excepted) called a sculling-boat; a scull being the term for a modification of the oar of such form and size as enables two of them to be conveniently used by the same person, one in each hand.

A randan is a combination, as it were, of a pair-oared boat and a sculling-boat—the sculler sitting between the two rowers. This is a useful kind of boat for travelling and general purposes, but is somewhat unsatisfactory in appearance. A pair-oared boat is sometimes fitted with the necessary rowlocks for double-sculling, and a randan for three pairs of sculls. Double-sculling has lately become very fashionable, and, when two men in a boat are not equally matched in power, has an obvious advantage over rowing under similar conditions.

A boat is said to be out-rigged when the rowlocks project laterally beyond the boat. This construction, generally of light iron, is used for very narrow boats, as otherwise there would not be sufficient leverage for oars or sculls of the full size. A funny is an open, out-rigged sculling-boat, having stem and stern alike, the keel falling away in a sloping curve from either end. A whiff resembles a funny in every point, except that the stern is upright, and not
sloped away as the bows are. Racing-boats are invariably out-rigged, covered over with canvas or light wood, and are made without keel; they are never streak*-built, that is, the boards do not overlap each other, as in ordinary boats, and are as smooth underneath as sand-paper and polishing can render them. The name cutter is sometimes applied to this description of boat.

The charge for building the best class of rowing-boats used, some few years ago, to be roughly estimated at a pound per foot of the length. The growing demand for pleasure-boats, added to the increased price of materials and the difficulty of getting good hands, has now, we understand, considerably augmented the cost of production: probably five and twenty shillings would be nearer to the average builder's charge at the present time.

In the Field, in answer to inquiries at different times, particulars have been given for the home-building of a punt, to be worked with sculls, for fishing, &c. The following measurements have been found to answer well:—

Take for the sides two 1-inch planks, 16 inches wide and 14 feet long; for the ends use 2-inch plank. Cut the stern-piece 30 inches long at bottom, and 40 inches at top; cut the bow-piece 12 inches wide, 40 inches long at bottom, and 50 inches long at top. Put these pieces in position, and securely nail the sides to them; this can be readily done by bringing the planks into place by means of a rope twisted with a short lever. After the sides are thus secured, true up the bottom edges, and plank crosswise with 3/4-inch plank one-eighth of an inch apart; caulk these seams with oakum or cotton, and pitch the whole bottom, also two or three inches up the sides. By putting in two pieces in the middle, the required distances apart, and perforating the cross-planking between them, a "well" will be readily formed. A keel, one inch, two inches, or three inches deep, can then be nailed on, according to the depth of the water where the punt is to be used: several strips of wood a few inches apart, running from stem to stern and nailed to the bottom, strengthen the boat very much. A movable floor, or false bottom, is found to be a great convenience. For rowlocks, the old-fashioned plan of round thowls will be found preferable, being valueless if lost, and the deficiency made good by any

* Clench or clinker-built are other terms used with the same meaning.
bit of stick trimmed with the pocket-knife. The original writer said he had one in use for two years, and that it answered admirably, carrying six persons comfortably; and that it would bear a single man standing close to the side without taking in water, would carry a waggon-load of ice, and could be pulled for a couple of miles by a girl without difficulty.

For some notice of the up-river barges we would refer the reader to our first chapter. The sunk barge, which we have made the tail-piece to this chapter on the river craft, will, at the same time, not inappropriately terminate these pen and pencil notes of Life on the Upper Thames.
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Deacidification

Adhesives

WHEATSTARCH PASTE
E.V.A.

Lined / Laminated

Chemicals / Solvents

Cover Treatment

Other Remarks